1932.

QUEENSLAND.

ANNUAL REPORT

OF

THE COMMISSIONER OF PUBLIC HEALTH

TO

30TH JUNE, 1932.

PRESENTED TO PARLIAMENT BY COMMAND.

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ANNUAL REPORT OF THE COMMISSIONER OF PUBLIC HEALTH,

1931-1932.

TO THE ASSISTANT UNDER SECRETARY, HOME SECRETARY'S DEPARTMENT.

SIR,—I have the honour to submit for the Minister's information the following particulars regarding the work carried out by this Department during the twelve months ended the 30th June, 1932, as well as my comments regarding Public Health administration for the State of Queensland.

The following vital statistical information is furnished to show the fluctuations in the rates of this State for the preceding year as compared with the one under review, and the analysis of the various rates in other countries of white races:—

CRUDE BIRTH RATE.

Country.	Year.	Birth Rate.	Year.	Birth Rate.
Queensland	1930	20·14	1931	18·62
New South Wales	1930	20·95	1931	19·02
Victoria	1930	18·56	1931	16·88
South Australia	1930	17·19	1931	15·56
Western Australia	1930	21·98	1931	20·32
Tasmania	1930	22·11	1931	21·65
Commonwealth	1930	19·93	1931	18·23
New Zealand	1930	18·80	1931	18·42
England and Wales	1929	16·3	1930	Not available
Scotland	1929	19·	1930	19·3
Irish Free State	1929	19·8	1930	Not available
Canada	1929	24·	1930	Not available

DEATH RATE.

Country.	Year.	Death Rate.	Year.	Death Rate.
Queensland	1930	7·93	1931	7·86
New South Wales	1930	8·53	1931	8·48
Victoria	1930	8·94	1931	9·48
South Australia	1930	8·35	1931	8·38
Western Australia	1930	9·02	1931	8·75
Tasmania	1930	9·	1931	9·35
New Zealand	1930	7·77	1931	8·34
England and Wales	1929	13·4	1930	11·4
Scotland	1929	14·5	1930	13·2
Irish Free State	1929	14·6	1930	14·1
Canada	1929	11·6	1930	Not available

RATES OF INFANTILE MORTALITY IN VARIOUS COUNTRIES.

Country.	Year.	Death Rate per 1,000 Births.	Year.	Death Rate per 1,000 Births.
Queensland	1930	40·23	1931	36·56
New South Wales	1930	49·84	1931	43·48
Victoria	1930	46·61	1931	44·47
South Australia	1930	48·38	1931	36·35
Western Australia	1930	46·74	1931	41·35
Tasmania	1930	50·56	1931	45·99
New Zealand	1930	34·5	1931	32·2
England and Wales	1929	74·	1930	60·
Scotland	1929	87·	1930	83·
Irish Free State	1929	70·	1930	67·
Canada	1929	92·	1930	Not available

COMMUNICABLE DISEASES.

The monthly incidence of infectious diseases throughout the State is shown in the following tables.

In addition tables for the calendar year 1931 are furnished as hereunder.

Statistical information is also supplied for the financial year 1930-31.

COMMUNICABLE DISEASES (EXCLUSIVE OF VENEREAL DISEASES)—1ST JULY, 1931, TO 30TH JUNE, 1932.

(*a*) METROPOLITAN AREA.

Diseases.	Months. 1931. July.	Aug.	Sept.	Oct.	Nov.	Dec.	1932. Jan.	Feb.	Mar.	Apr.	May.	June.	Totals. 1931-32.	1930-31.
Anchylostomiasis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Acute Anterior Poliomyelitis	1	..	..	1	2	27	56	42	2	..	..	..	131	..
Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bilharziasis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Brill's Disease	..	..	..	..	..	..	..	..	1	..	..	..	1	..
Cerebro-Spinal Meningitis (epidemic)	..	..	..	..	1	..	..	..	..	1	..	..	2	3
Cholera Asiatic	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	93	57	57	44	42	75	56	35	25	33	48	77	642	658
Dysentery Amoebic	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Dysentery Bacillary	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Encephalitis Lethargica	..	..	..	1	..	..	1	..	..	..	..	..	2	..
Filariasis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Leprosy	..	..	..	2	..	..	..	..	..	..	..	..	2	1
Malaria	..	..	..	..	..	..	2	..	..	2	..	..	4	..
Plague (Bubonic or Oriental)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	1	1	..	..	..	..	2	1	..	..	2	..	7	6
Puerperal Pyraexia	2	..	..	..	..	2	4	3	..	1	..	..	12	12
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	29	25	21	16	16	16	20	16	17	5	16	13	210	248
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhoid Fever (includes Paratyphoid	2	3	3	2	3	3	3	4	..	..	1	..	24	34
Typhus Fever	..	..	..	5	..	..	..	..	..	..	..	..	..	..
Tuberculosis (all forms)	3	8	8	17	14	9	13	7	7	19	11	5	121	160
Yellow Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	131	94	89	83	78	132	157	108	52	61	78	95	1,158	1,124
1930-1931 Totals	90	74	75	73	80	74	69	59	79	123	169	159	1,124	..

(*b*) OUTSIDE AREAS.

Diseases.	Months. 1931. July.	Aug.	Sept.	Oct.	Nov.	Dec.	1932. Jan.	Feb.	Mar.	Apr.	May.	June.	Totals. 1931-32.	1930-31.
Anchylostomiasis	..	..	..	..	..	1	..	..	..	2	1	..	4	3
Acute Anterior Poliomyelitis	..	..	..	..	2	12	33	55	40	19	14	6	181	3
Anthrax	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bilharziasis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Brill's Disease	..	..	..	..	..	..	..	..	..	..	..	1	1	..
Cerebro Spinal Meningitis (epidemic)	1	1	2	..	..	..	..	..	2	1	..	1	8	1
Cholera Asiatic	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	183	135	128	70	67	99	75	88	84	101	110	156	1,296	1,466
Dysentery Amoebic	..	..	..	..	..	..	..	..	1	..	..	..	1	1
Dysentery Bacillary	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Encephalitis Lethargic	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Filariasis	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Leprosy	..	..	2	1	1	..	..	1	2	1	6	..	14	..
Malaria	2	..	..	..	..	..	..	..	..	..	..	1	3	3
Plague (Bubonic or Oriental)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	1	..	1	2	1	..	3	1	2	2	1	1	15	16
Puerperal Pyraexia	..	3	..	..	..	1	1	1	..	2	1	..	9	..
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	47	31	42	26	15	23	13	16	18	24	26	29	310	429
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhoid Fever (includes Paratyphoid)	2	2	4	9	2	6	..	25	11	8	3	5	77	134
Typhus Fever	..	..	..	..	..	..	..	..	..	..	1	..	1	..
Tuberculosis (all forms)	24	13	11	4	12	7	..	11	14	16	16	14	142	146
Yellow Fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	260	185	190	112	100	149	125	198	174	176	179	214	2,062	2,202
1930-31 Totals	125	129	141	113	107	187	191	134	192	230	348	305	2,202	..

Annual Statement of Notifiable Diseases during Calendar Year 1931 (Metropolis).

Diseases.	Months.												
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Anchylostomiasis	..	..	..	..	..	..	..	..	..	..	..	..	..
Bilharziasis	..	..	..	..	..	..	..	..	..	..	..	..	..
Brill's Disease	..	..	..	..	..	..	..	..	..	..	..	..	..
Cerebro Spinal Meningitis	..	..	3	..	..	..	..	..	..	..	1	..	4
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	33	29	41	75	118	119	93	57	57	44	42	75	783
Dysentery	..	..	..	1	..	..	..	..	..	..	..	..	1
Encephalitis Lethargica	..	..	..	..	..	..	..	..	..	1	..	..	1
Filariasis	..	..	..	..	..	..	..	..	..	..	..	..	..
Leprosy	..	..	..	..	..	..	..	..	..	2	..	..	2
Malaria	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..
Poliomyelitis Anterior	..	..	..	..	..	..	1	..	..	1	2	27	31
Puerperal Fever	..	2	1	..	3	..	3	1	..	..	..	2	12
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	15	7	11	36	32	30	29	25	21	16	16	16	254
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis	15	19	21	10	12	10	3	8	8	17	14	9	146
Typhoid Fever	6	2	2	1	4	..	2	3	3	2	3	3	31
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..
Yellow Fever	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	69	59	79	123	169	159	131	94	89	83	78	132	1,265

Annual Statement of Notifiable Diseases during Calendar Year 1931 (ex Metropolis).

Diseases.	Months.												Total
	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Anchylostomiasis	..	..	..	..	..	..	..	..	..	..	..	..	..
Bilharziasis	..	..	..	..	..	..	..	..	..	..	..	1	1
Brill's Disease	..	1	..	..	..	..	..	..	..	..	..	..	1
Cerebro Spinal Meningitis	..	..	..	..	..	..	1	1	2	..	..	..	4
Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	92	68	101	164	267	235	183	135	128	70	67	99	1,609
Dysentery	..	1	..	..	..	..	..	..	..	..	..	..	1
Encephalitis Lethargica	..	..	..	..	..	..	..	..	..	..	..	..	..
Filariasis	..	..	..	..	..	..	..	..	..	..	..	..	..
Leprosy	2	..	1	1	1	3	..	..	2	1	1	..	12
Malaria	..	..	..	..	3	..	2	..	..	..	..	..	5
Plague	..	..	..	..	..	..	..	..	..	..	..	..	..
Poliomyelitis Anterior	..	..	..	..	..	..	..	..	..	..	2	12	14
Puerperal Fever	3	1	2	..	1	..	1	3	1	2	1	1	16
Relapsing Fever	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever	53	22	50	47	51	45	47	31	42	26	15	23	452
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis	21	9	21	9	9	4	24	13	11	4	12	7	144
Typhoid Fever	20	33	17	10	14	8	2	2	4	9	2	6	127
Typhus Fever	..	..	..	..	..	..	..	..	..	..	..	..	..
Yellow Fever	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	191	135	192	231	346	295	260	185	190	112	100	149	2,386

Anterior Poliomyelitis.

An epidemic of this disease characterised the summer portion of the fiscal year—i.e., October to May. The first case, which might be included in the epidemic, occurred on the 19th October, 1931, in the Paddington district of the metropolitan area, and no further case was reported till practically a month later, when a second case occurred in the Red Hill area. Thereafter there was a general tendency for the disease to spread through the metropolitan area, at first irregularly along a line north and south and marked by the South-Western Railway and the Sandgate Railway, from which lines the disease branched out all over the city. In the country the first case of the epidemic occurred in Toowoomba on the 14th November, and from then on the disease became marked, chiefly south-east of a line running from Maryborough to Goondiwindi. With the passage of time, the disease spread northwards and westwards, some places being marked by small localised epidemics. It was noticed that the disease definitely spread along the lines of communication, ultimately reaching Mareeba in the north, Richmond in the west, and Quilpie in the south-west. In the period under review there were 299 cases, of which 127 occurred in the metropolitan area and 172 in the country. An analysis of the figures shows:—

(1) Sex—

Males, 161; females, 138; being 54 per cent. and 46 per cent. for the State.

Metropolitan: Males, 50 per cent.; females, 50 per cent.

Country: Males, 57 per cent.; females, 43 per cent.

(2) Age (modes).—The commonest ages were as follows:—

Metropolitan: Males, 4 years; females, 1 year. General age incidence, 1 to 5 years.

Country: Males, 5 years; females, 5 years. General age incidence, 2 to 7 years.

Percentage under school age (1 to 5 years): Metropolitan, 61·4 per cent.; country, 44 per cent. (60 per cent. 1 to 7 years).

The epidemic reached its peak in the city in the week—2nd to 9th January. Two subsidiary peaks followed at roughly three-week intervals, on the 30th January and 20th February. In the country the height of the epidemic was reached in the week 23rd to 30th January,

roughly three weeks after the city peak, with a subsidiary peak on the 5th February. In both cases there was a tendency for the epidemic to reach its peak rapidly with a slow decline. For the State as a whole the largest number of cases occurred on the 30th January.

An analysis of the conditions prevailing at the time of the epidemic revealed the fact that for some considerable time previously no rain had fallen, as generally happens, but on the other hand from reports received from all over the country there was no unanimity relating to the presence of flies, dust, rainfall, sanitary conditions, and milk supply. Cases occurred where sanitary conditions were poor and where they were good. In many instances milk was supplied direct from the household cows, in other cases from different dairies.

One point, however, appears outstanding in many of the reports, and leads one to the conclusion that the main means of the transmission of the disease is by direct contact from patient to patient or by means of an intermediate contact and possibly by an infected article. This is borne out by the fact that it has been observed that the disease has broken out for the first time in fresh communities after the arrival of some persons or person from a heavily infected area. It has also been noted that, after visiting families where the disease broke out shortly after the visit, it also occurred a few days later in some member of the family of the visitors.

A significant case is the following:—After playing in a cricket match one of the members of the team fell ill with the disease the following day, 2nd March. A younger brother of another member of the team, and who was not present, contracted the disease on the 5th April. It was stated in the report that this second case played with the cricket ball which had been used by the first case and had been taken home by his brother.

Two sisters who had been isolated in the bush, many miles from a small Western town, contracted the disease within a few hours of each other. In the town there had been two definite cases of infantile paralysis, and many children also had fallen sick displaying symptoms of some slight febrile upset. No one had been near these two girls, but the weekly mailman who delivered Education Department papers, which these two girls studied, after receiving them one Saturday morning. They were the only two in the family to touch the papers, and the only two to get the disease. It is of interest to note that the mailman's son had been away from school between the 2nd and 15th February for two periods with a day of attendance in the middle; one period was due to a sore heel, the other to a febrile illness displaying laryngitis of no severity. Both girls took ill on the 14th February, the mailman having visited them on the previous day. It is hard to find any other means of transmission than by the mailman and, if accepted, the short incubation period of one day must be noted.

From reports received from medical practitioners, and as a result of personal observation, it was noted that, in the middle and towards the end of the epidemic of infantile paralysis, some children fell ill showing the following symptoms:—Headache, sore throat, vomiting, constipation, and fever, the temperature generally reaching 101 deg. Fahr. Recovery was complete in two or three days. In households where there were several children, and where one after the other took ill, three or four days generally elapsed between each case. It is quite possible that these children were suffering from mild attacks of infantile paralysis.

The State Campaign against Poliomyelitis.

The last appreciable epidemic of infantile paralysis occurred in 1924-25 in Queensland, when 61 cases were reported in the metropolitan area and 81 cases from outside the metropolis. In 1929 22 cases were reported for the whole of the State, and, in 1930, 4 cases.

On the other hand, the disease had been very conspicuous in the Southern States for the last two years. In view of this occurrence in the South, the State Department of Public Health in September, 1931, commenced an investigation as to the possibility of receiving supplies of serum from the South if an epidemic were to occur in Queensland. Just before the epidemic had become manifest, arrangements had been made with the Victorian Authorities for the purchase of supplies of serum when required.

Unfortunately, owing to the lack of appreciation that an epidemic was in force in the metropolitan area, some delay took place in notifying the State Health Department, with subsequent delay in the arrival of supplies of serum. However, on receipt of these notifications, supplies were forthcoming immediately.

In the first week of January, 1932, on my advice, the Home Secretary called a conference which was presided over by the Hon. Mr. Peterson, Home Secretary, and was attended by the Lord Mayor of Brisbane, the President of the British Medical Association (Dr. Meyers), Alderman Decker, and several other medical representatives.

The result of the deliberations was the formation of a Medical Committee, of which I was appointed chairman, to direct a campaign and to ensure full co-operation of all Health Authorities. Previous to the conference the Department issued the following advice:—

1. Avoid all crowds and public gatherings. Keep out in the open air.

2. Avoid common drinking cups at public fountains and common food utensils. All food utensils should be thoroughly washed in boiling water.

3. Keep down dust around dwellings by spraying with water.

4. Be careful of diet to avoid gastro intestinal disorders, as many a case starts with digestive upset.

5. Boil all milk (this is not the usual means of spread).

6. Although the insect theory is disproved, be careful about screening, and keep down flies by clearing up debris, manure, &c., around dwellings.

7. No visiting of cases.

8. Contacts should not intermingle with their fellows; children contacts especially should be kept away from other children, and should not return to school until a period of three weeks had elapsed.

9. Where a case has occurred in the home all discharges should be destroyed—e.g., fæces, urine, sputum, &c.—either by burning or by disinfecting. All bed linen and clothing should be boiled or soaked in disinfectant, and a thorough cleansing of rooms with soap and water and disinfectants should be undertaken.

10. Gargles.—Strong disinfectants are not recommended, in fact they are dangerous. The following are useful as gargles and nasal douches; their use is indicated, as it is believed that the virus exists at the back of the nose and in the throat:—

(*a*) Normal saline (one teaspoonful of salt to one pint of water).

(*b*) Hydrogen peroxide (1 per cent. solution).

(*c*) Potassium permanganate (1 in 1,000).

11. Any child falling ill with symptoms of a feverish attack should be seen by a doctor who can best judge what should be done.

12. Serum is valuable in the treatment of the disease if given in the early stages before the onset of paralysis.

The Committee held meetings regularly, and one of the first arrangements made was the organisation of the manufacture of the supplies of serum in Brisbane under the direction of Dr. J. V. Duhig. In this connection the Press and radio services willingly co-operated in the soliciting for donations of blood from those who had previously suffered from the disease, and of whom lists were procurable for several years past. The response to the appeal was inspiring, spontaneous, and generous, and the thanks of the community as a whole are due to the donors of blood.

Although it was impossible to forward supplies of serum to positions all over the State to be held there in readiness, if the disease were to break out, nevertheless it was a rule that no area was refused a supply on the advent of the first case. Small supplies were held at strategic points, and thus delay was obviated and time was given for fresh supplies to be rushed to that point. The railways, service cars, and aerial services rendered yeoman service in this respect. As supplies of serum became more plentiful, it was possible to establish many more depôts, and now serum is distributed all over the State.

For the benefit of medical men desiring to study the disease, clinics were established at the Hospital for Silk Children and the Mater Misericordiae Children's Hospital. The Medical Superintendent of the Hospital for Sick Children (Dr. Paterson) was appointed Consultant, and his advice and services were made available to medical practitioners. It was recommended that suspects should be sent to the Children's Hospitals, where special arrangements were made for their immediate clinical and pathological examination and treatment, where necessary. As the epidemic took place during the Christmas recess, the question of the reopening of the schools was a matter of much deliberation.

The Committee decided to recommend that the Minister of Education be requested to close the schools to all children below the age of twelve years, and to remove the compulsory clause relating to attendance for children over that age.

Regulations were published wherein power was given to the Medical Officer of Health or other medical officer authorised by the Commissioner to enforce isolation of contacts where deemed necessary.

Serum Treatment.

From a general review of the reports received from Medical Officers of Health, the use of serum produces beneficial results if given early in the disease.

An analysis from the Brisbane General Hospital up to 3rd June, 1932, is as follows:—

	The number of admissions to the Hospital for Sick Children during the recent epidemic was	122
(*a*)	Total number who received Anterior Poliomyelitis serum	74
	Total amount of Anterior Poliomyelitis serum	2,870 c.c.s.
	Average dose per patient	38.7 c.c.s.
	Routes mainly used (*a*) intrathecal (*b*) intravenous mainly (*c*) intramuscular (rare)	
(*b*)	Total number in preparalytic stage who received serum, 54—	
	Total number who have been discharged cured, and so far have shown no signs of paralysis	46
	Total number who developed paralysis after serum	5
	Of these remaining in hospital 2	
	Discharged completely cured 3	
	Died	3
	Total	54
(*c*)	Total number who received serum when paralysed, 20—	
	Of this group there are in hospital at the present time (some mild and some severely paralysed)	11
	Discharged quite cured	3
	Discharged to attend Massage Department	1
	Died shortly afterwards	3
	Died weeks later of intercurrent diseases	2
	Total	20
(*d*)	Total number who did not receive serum, 48—	
	Of these there are in hospital at the present time	26
	Were paralysed but have since been discharged cured	3
	Very mild, preparalytic stage—discharged cured	7
	Attending Massage Department	6
	Transferred to Mater Children's Hospital	1
	Transferred to Metropolitan Hospital for Infectious Diseases where death occurred	1
	Died	4
	Total	48
	Total admissions—	
	Total remaining in hospital	39
	Total completely cured and discharged	62
	Total attending Massage Department	7
	Total transfers	2
	Total deaths	12
	Total	122

Admitted to Metropolitan Hospitals for Infectious Diseases between 26th October, 1931, and 10th February, 1932 9 cases.

Case 1—30 c.c. I.T.; 40 c.c. I.V.; 30 c.c. I.V. Paresis left leg on admission. Recovery.

Case 2—30 cc. I.V.; 30 c.c. I.M. Paresis both legs on admission. Recovery.

Case 3—25 c.c. I.M.; 25 c.c. I.V. Paresis left lower extremity on admission. Incomplete recovery.

Case 4—30 c.c. I.T.; 30 c.c. I.V.; cell count, 65 c.c. Stiff neck. Recovery.

Case 5—25 cc. serum I.T. Paresis both legs and arms on admission. Incomplete recovery.

Case 6—15 c.c. I.T.; 10 c.c. I.V.; 6 c.c. I.M. Cell count 21 cells per c.c. Stiffness cervical muscles. Recovery.

Case 7—12 c.c. I.T. Paresis right arm. Recovery.

Case 8—Paralysis left arm and lower extremities. 29 cells per c.c. Admitted 23rd October, 1931. Died 25th October, 1931. No serum available.

Case 9—Paralysis lower extremities. Admitted 26th October, 1931. Died 2nd November, 1931. Serum not available.

Death rate over the whole State 14.68 per cent.; metropolitan 21.26 per cent., country 9.88 per cent.

Recommendations.

1. Isolation of cases and contacts. This should be rigidly enforced, especially on the occurrence of the first cases, as the disease is most probably conveyed to others by means of actual cases, abortive cases, and contacts.

It was further recommended, later in the epidemic, that common-sense measures of isolation of contacts should be put into operation, such as a less rigid isolation for adults who, as the result of their occupations, do not come in contact with children or who work in the open air.

Parents should be warned not to allow their children to intermingle with others where crowding might ensue, such as places of entertainment, Sunday schools, churches, &c.

Schools.—It is felt that the closing of schools is of importance in country areas as there is a greater opportunity for the disease to fall on virgin soil in the country and children coming from isolated homes to the school centre have a greater tendency to contract the disease, once it has been introduced into the school. This question is not so marked in the urban areas. There is no doubt that school attendance enforces a regular discipline on the children, which is to their advantage. On the other hand, the opinion is held that it is better to exclude the younger children from school during an epidemic.

2. Gargling and Nasal Douching.—This measure should be of importance as a protective agent. Strong antiseptics are not advised, but the routine use of a normal salt solution or a 1 per cent. hydrogen peroxide is recommended.

3. Disinfection.—Premises where a case has occurred should be disinfected.

Notification.—All cases should be notified without delay and cases showing influenzal symptoms, such as headache, sore throat, fever, vomiting, and constipation looked on with suspicion.

Serum.—It is of the utmost importance that the present organisation for the supply of serum should be continued. A reserve supply should always be on hand. The Department has distributed supplies of serum to various strategic points of the State to ensure quick transit. They are situated at the following centres:—Bundaberg, Cairns, Charleville, Cloncurry, Gayndah, Gladstone, Gympie, Kingaroy, Longreach, Mackay, Maryborough, Nambour, Rockhampton, Toowoomba, Townsville, Thursday Island, Wondai, and Warwick.

As there is a likelihood of a return of the disease this coming summer, supplies of serum at these centres will be maintained.

Diphtheria.

In the Annual Report for the twelve months ended June, 1931, it was reported that since the publication of the 1929-30 Report the Department has used every means in its power to warn the component Local Authorites and the people of the State that diphtheria would reach epidemic proportions in 1931.

Unfortunately, these prognostications were correct, and the incidence of diphtheria in the country and metropolitan areas was considerably greater than it had been before, the peak of the epidemic being reached at the end of May and the beginning of June, the average normal period of greatest prevalence.

In December there was a mild epidemic in Brisbane, whereas in the country the number of cases fell below that of the estimated number. With the course of years, and probably due to the growth of population in the State, there has been a gradual increase in the number of cases reported, but this year the peak has been slightly below that of the alternate non-epidemic year of 1930, and, of course, considerably below the peak of 1931.

It is felt that even now the influence of immunisation is beginning to be demonstrated. It is with pride that the Department can state that up to the end of June 30,000 children have been immunised, and these numbers are being added to daily.

It should be very reassuring to everyone concerned that all these children have been immunised without any untoward conditions occurring.

There is no doubt that the campaign received a great impetus when the Government decided to pay expenses incurred in immunisation as many Local Authorities, who had not done anything in this connection, became active and launched their schemes. Now that the expense has again been placed upon the Local Authority it is confidently hoped that the knowledge which has been gained of the advantages accruing from immunisation will be a deciding factor in influencing the Local Authorities to continue this excellent form of insurance against infectious disease. Recently the City of Toowoomba reported that they had no cases of diphtheria in the hospital, a record for that city. It must be stressed that this City has been one of the most prominent in promoting immunsation.

Unfortunately, in the City of Brisbane, from investigations made, it has been ascertained that the people appear to know nothing of immunisa-

tion, and many would have been glad to avail themselves of the opportunity of protecting their children had they but known. This, indeed, is unfortunate, as signs are appearing that the ordinary 2 to 1 ratio of the country to the metropolitan incidence of cases is being upset, as there is a tendency for the number of cases in Brisbane to equal those in the country, and as 1933 should be an epidemic year, as shown by a review of the incidence of diphtheria over several years, the result for Brisbane must be disastrous. It requires three or four months to successfully establish immunity against diphtheria in children, and as the highest incidence of diphtheria generally occurs about April, May, or June, there is just sufficient time for the people of Brisbane to come forward and diminish the incidence of the disease with its attendant dangers, as is being done in the country.

Recently at the Local Authorities' Conference the State Health Officer addressed the delegates on the importance of continuing the schemes commenced by the Government. It was gratifying to note that the address was well received. Since the initiation of the campaign the Department has never relaxed its efforts to advance this prophylactic measure, and from time to time I have directed the State Health Officer to proceed to certain parts of the State to continue the propaganda by means of public addresses, illustrated by lantern slides and cinematograph film, demonstrations, and interviews with Local Authorities. I feel confident that, in those areas where immunisation has become established, a decided modification of the incidence of the disease will be demonstrated in the oncoming year.

Scarlet Fever.

Cases reported for year 1931-32.		Cases reported for year 1930-31.	
Metropolitan ..	210	Metropolitan ..	248
Outside areas ..	310	Outside areas ..	429

This shows a noticeable decrease both in the metropolitan and outside areas.

Tuberculosis.

All forms of tuberculosis were notifiable from 7th October, 1931, previously only pulmonary tuberculosis was notifiable.

Cases reported for year 1931-32.		Cases reported for year 1930-31.	
Metropolitan ..	121	Metropolitan ..	160
Outside areas ..	142	Outside areas ..	146

also a reduction of 43 cases as compared with the figures for the previous year.

The Part-time Medical Officer of the Tuberculosis Bureau reports as follows:—

The following patients have been seen at the Tuberculosis Bureau during the year ending 30th June, 1932:—Twelve patients sent to Dalby Sanatorium; 1 patient sent to Westwood Sanatorium; 1 patient sent to Ardoyne Hospital; 5 patients sent to Brisbane Hospital; 7 patients sent to Diamantina Hospital; 30 other patients.

Of these, five patients were seen twice, three were seen three times, one was seen four times, and one was seen five times.

Typhoid Fever.

Cases reported for year 1931-32.		Cases reported for year 1930-31.	
Metropolitan ..	24	Metropolitan ..	34
Outside areas ..	77	Outside areas ..	134

From the above table it will be noted that typhoid fever shows a marked decrease throughout the State, due principally to improved sanitary conditions in rural areas.

A series of eight cases of typhoid fever occurred during the year at 385½-Mile Railway Camp, McKinlay Shire, and these were carefully investigated by Dr. Hogg, Medical Officer of Health for that area. One man, G.C., was shown to have been present in the camp at or near the time that each case developed. This man had previously suffered from typhoid fever. The usual examination of fæces and urine was made from several suspect carriers, including G.C., with negative results, but as suspicion pointed strongly to G.C. he was induced to go into hospital for a more complete examination and for this purpose entered the Townsville Hospital where, after careful examination, it was discovered that his gall bladder contained typhoid fever bacilli. He was then advised to undergo an operation for the removal of the gall bladder. This he consented to on condition that all expenses were paid during the time he was detained. This was guaranteed him by the Government, and the operation was successfully performed and he was finally discharged. Much credit is due to Dr. Hogg for the careful investigations he made that led to the detention of this typhoid carrier. Included in the eight cases reported were the wife and two stepsons of G.C.; the wife was unfortunately one of the two fatal cases. No cases have occurred in the area since this man's discharge.

Venereal Diseases.

The following particulars detail the activities of this Department in connection with Venereal Diseases for the twelve months ending 30th June, 1932. The subject matter is dealt with under respective headings.

Changes in System.

The system of five Part-time Medical Officers has been superseded by a system in which there is a Full-time Medical Officer for the treatment of venereal diseases, and a Part-time Medical Officer (female). The change took effect on 1st November, 1931, by the appointment of Dr. Geoffrey Stanhope Sautelle Hayes to the former position and Dr. Beatrice Warner to the latter position.

Previously female cases were sent to the private rooms of the part-time officers, and a separate female clinic had been mooted for some time. Under the new system this was given effect to, and after due consideration it was decided to establish the clinic at the William Street building which, whilst centrally situated, is in a quiet portion of the city. Two after-

noon and two night sessions were decided upon tentatively, and, so far, have proved quite satisfactory. Dr. Warner attends to the female cases, assisted by two Departmental nurses.

Sessions at the male clinic have remained much as before pending completion of alterations to the premises, when some form of classification of cases with suitable sessions will be introduced.

Accommodation.

It was apparent at the outset that the accommodation and facilities at the William street rooms and at the male clinic in Hope street would be totally inadequate and obsolete if the treatment was to be placed upon a satisfactory footing. Also V.D. clinics must be made clean and attractive not only to encourage regular attendances, but also to attract others who would otherwise seek the advice of quacks, &c. Results are already exemplifying the truth of this.

Work was first started on the William Street premises. These have been entirely remodelled and renovated, and fitted with modern equipment, and now present a clean and up to date appearance.

At the Male clinic, though the space available for extension was limited, the most has been made of it. Work has not been quite completed at the time of writing this, but when finished we will have all facilities for modern surgical cleanliness and adequate provision for privacy, important features which had been lacking hitherto.

Examination of Prostitutes and Other Sources of Infection.

A certain number of known prostitutes are examined every week and if found to have evidence of disease are transferred to the Venereal Isolation Hospital. There they receive the necessary treatment under Dr. Warner's supervision. These women are those known to the Department as regular prostitutes, plus a certain number of women whom the police send along. Generally speaking the women in recognised houses present no difficulty in so far as attending for examination is concerned, but the type of prostitute who patronises assignation houses, frequents wine saloons, or keeps a flat, present a greater problem. We depend on the police to find out this type, and it is hoped that under the Vagrancy Act more will be apprehended and sent along for examination. The most fertile and ubiquitous source of infection is still the non-professional girl of lax morals. During the last six months inquiries from all new cases reporting to the male clinic have been successful in many cases in gleaning the source of infection, with the result that, in the majority of instances, they have been brought in for examination and treatment, and this has largely helped towards being able to secure double the attendances at the female clinic as compared with numbers treated in previous years. Many untreated cases still exist, however, and by more active propaganda in the future it is hoped to increase the attendances at both the Male and Female clinics.

The following table will give some idea of the work at the clinics during the last five years:—

Year.	Male Clinic.		Female Clinic.		Prostitutes.	
	Total.	Venereal.	Total.	Venereal.	Examined.	Detained.
1927–1928	629	356	42	25	812	70
1928–1929	648	333	83	19	851	77
1929–1930	727	437	84	29	847	90
1930–1931	771	445	98	38	892	83
1931–1932	756	434	83	65	945	67
			incomplete			

Social Status of Patients Notified in Sex Groups and under Disease Headings.

Area.	Gon.		Opth. Neon.		Syph.		Sec. Syph.		Tert. Syph.		Cong. Syph.		Gon. and Syph.		Soft Chancre.		Ulc. Gran.		Ven. Warts.		Totals.		Grand Total.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Married—																								
Metropolitan	119	67	..	..	12	8	3	..	35	28	2	..	1	2	..	..	..	..	1	..	173	105	278	416
Outside ..	63	32	..	..	12	10	2	..	5	7	1	..	1	1	1	..	2	..	..	1	87	51	138	
Single—																								
Metropolitan	386	122	2	1	45	18	8	3	30	11	144	169	4	4	1	..	..	..	2	6	622	328	950	1,342
Outside ..	308	52	..	..	17	7	1	..	4	2	..	1	..	..	..	..	..	..	..	..	330	62	392	
Separated																								
Metropolitan	12	2	..	..	5	1	..	2	1	1	..	..	..	..	..	..	..	..	..	..	18	6	24	28
Outside ..	3	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	3	1	4	
Widowed—																								
Metropolitan	14	3	..	..	2	2	1	1	3	2	..	..	..	..	..	..	..	..	..	..	20	8	28	45
Outside ..	8	2	..	..	3	..	1	1	1	..	..	..	1	..	..	..	..	1	..	..	14	3	17	
Divorced—																								
Metropolitan	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Outside ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Unknown—																								
Metropolitan	2	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4	10
Outside ..	2	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	4	2	6	
Totals—																								
Metropolitan	533	195	2	1	65	29	12	6	69	42	146	169	6	6	1	..	2	..	3	..	836	448	1,284	1,841
Outside ..	384	88	..	..	33	17	4	..	10	10	1	1	1	1	1	..	1	1	..	1	438	119	557	
Totals ..	917	283	2	1	98	46	16	6	79	52	147	170	7	7	2	..	3	1	3	1	..	..	..	
Grand Totals	1,200		3		144		22		131		317		14		2		4		4		..	..	1,841	

Ages of Persons Notified in Sex Groups and Under Disease Headings.

Ages.	Gon.		Opth. Neon.		Syph.		Sec. Syph.		Tert. Syph.		Cong. Syph.		Gon. and Syph.		Soft Chancre.		Ulc. Gran.		Ven. Warts.		Totals.		Grand Totals.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Unknown or unobtainable	18	10	..	..	4	4	1	..	2	2	3	4	..	..	..	..	..	..	..	..	28	20	48
1 year	1	2	1	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..	..	..	4	4	8
2 years ..	2	..	..	..	..	..	..	..	..	..	7	6	..	..	..	..	..	..	..	..	7	8	15
3 years ..	..	1	..	..	..	..	..	..	..	..	9	16	..	..	..	..	..	..	..	..	9	17	26
4 years ..	..	2	..	..	..	..	..	..	..	..	8	10	..	..	..	..	..	..	..	..	8	12	20
5–10 years ..	2	17	..	..	..	..	..	..	..	..	83	101	..	..	..	..	..	..	..	..	85	118	203
11–15 years ..	..	6	..	..	..	..	..	..	1	..	30	28	..	..	..	..	..	..	..	..	31	34	65
16–20 years ..	101	69	..	..	5	10	1	1	6	2	2	3	..	1	1	..	2	..	..	..	118	86	204
21–25 years ..	269	83	..	..	17	12	4	1	2	4	..	..	2	3	..	..	..	1	..	..	294	104	398
26–30 years ..	197	47	..	..	18	8	3	2	3	7	..	..	2	1	1	..	..	..	..	1	224	66	290
31–35 years ..	158	18	..	..	14	2	4	1	5	10	1	..	1	2	..	..	1	..	..	..	184	33	217
36–40 years ..	75	17	..	..	13	5	1	..	13	10	..	..	2	..	..	..	..	..	3	..	107	32	139
41–45 years ..	40	4	..	..	11	2	1	..	9	10	..	..	..	..	..	..	..	..	..	..	61	16	77
46–50 years ..	26	2	..	..	8	..	..	..	11	3	2	..	..	..	..	..	..	..	..	..	47	5	52
51–55 years ..	13	2	..	..	5	1	1	1	12	3	..	..	..	..	..	..	..	..	..	..	31	7	38
56 years and over	18	2	..	..	3	2	..	..	15	1	..	..	..	..	..	..	..	..	..	..	36	5	41
Totals ..	917	283	2	1	98	46	16	6	79	52	147	170	7	7	2	..	3	1	3	1	1,274	567	1,841
Grand Totals	1,200		3		144		22		131		317		14		2		4		4		1,841		1,841

Monthly Incidence of Cases Notified in Sex Groups and under Disease Headings, 1931–1932.

Month.	Gon.		Opth. Neon.		Syph.		Sec. Syph.		Tert. Syph.		Cong. Syph.		Gon. and Syph.		Soft Chan.		Ulc. Gran.		Ven. Warts.		Totals.		Grand Totals.	Monthly incidence of V. D. notified.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.–F.	
July—																								
*Metropolitan	37	12	..	..	9	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	46	15	61	104
Outside ..	30	4	..	..	6	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	37	6	43	
August—																								
Metropolitan	42	14	..	..	6	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	49	15	64	110
Outside ..	32	7	..	..	5	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	38	8	46	
September—																								
Metropolitan	45	20	..	..	5	..	2	..	..	..	..	..	1	..	1	..	..	..	..	..	54	20	74	127
Outside ..	35	8	..	..	5	3	1	..	..	..	..	..	..	..	..	..	..	..	..	1	41	12	53	
October—																								
Metropolitan	53	9	..	..	5	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	58	11	69	117
Outside ..	32	8	..	..	4	2	..	..	..	..	..	..	1	..	..	..	1	..	..	..	38	10	48	
November—																								
Metropolitan	34	25	..	..	2	1	1	..	1	1	..	..	1	..	..	..	..	..	..	..	39	27	66	116
Outside ..	37	8	..	..	4	1	..	..	..	..	..	..	..		..	..	..	..	..	..	41	9	50	
December—																								
Metropolitan	53	21	..	..	7	7	3	1	4	2	135	152	2	..	..	..	..	..	..	..	204	183	387	456
Outside ..	42	13	..	..	2	5	1	..	3	..	..	..	1	1	1	..	..	..	..	..	50	19	69	
1932.																								
January—																								
Metropolitan	61	17	..	1	12	4	..	1	4	4	3	5	..	1	..	..	..	..	..	..	80	33	113	153
Outside ..	32	3	..	..	3	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	36	4	40	
February—																								
Metropolitan	50	19	..	..	1	2	..	3	21	14	4	7	..	2	..	..	..	..	..	..	76	47	123	148
Outside ..	16	7	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	18	7	25	
March—																								
Metropolitan	43	18	..	..	4	3	1	..	17	11	2	3	..	..	..	..	..	..	..	..	67	35	102	166
Outside ..	46	15	..	..	1	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	49	15	64	
April—																								
Metropolitan	36	9	..	..	3	1	1	1	8	4	..	..	1	2	..	..	..	..	..	..	49	17	66	110
Outside ..	35	7	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	36	8	44	
May—																								
Metropolitan	33	12	2	..	5	1	2	..	4	..	1	2	..	..	..	..	..	..	..	..	47	15	62	107
Outside ..	28	8	..	..	..	1	1	..	3	4	..	..	..	..	..	..	..	..	..	..	32	13	45	
June—																								
Metropolitan	46	19	..	..	6	5	2	..	10	6	1	..	..	..	..	..	..	..	2	..	67	30	97	127
Outside ..	19	..	..	..	1	1	..	..	2	6	..	1	..	..	..	..	..	..	..	..	22	8	30	
Totals—																								
Metropolitan	533	195	2	1	65	29	12	6	69	42	146	169	5	6	1	..	..	..	3	..	836	448	1,284	1,841
Outside ..	384	88	..	..	33	17	4	..	10	10	1	1	2	1	1	..	..	1	..	1	438	119	557	
Totals ..	917	283	2	1	98	46	16	6	79	52	147	170	7	7	2	..	3	1	3	1	1,274	567	1,841	..
Grand Totals	1,200		3		144		22		131		317		14		2		4		4		1,841			

It will be seen that attendances at the Male clinic have shown a steady increase since 1927 till the last twelve months, when there was a slight decrease. By comparison the Female clinic figures show a marked increase for the past twelve months. The reason for the latter fact is that we have not been content to wait for cases but have actively sought them out, particularly during the last six months. Whether the decrease in male figures can be attributed to a better clearing up of the sources of infection it is rather too soon to surmise. In any case the ratio of female to male cases treated was far from satisfactory in previous years, and even yet there is much room for improvement. In England during 1930 the ratio of female to male cases of venereal disease treated at the various centres was 13,885; 42,294, or approximately 1 to 3, and there is still (to quote from the report of the British Social Hygiene Council) room for improvement for they state . . . "we believe that a certain proportion of syphilitic women and children are escaping the operation of the Venereal Disease scheme and that, if this gap could be closed, considerable individual misery of innocent persons would be prevented." Also . . . "the low ratio of gonorrhœa to syphilis in the case of females suggests the probability that too large a proportion of women infected with gonorrhœa remains untreated." At our clinic last year the ratio 1 to 11·7 represented the proportion of female to male cases of venereal disease. This unfavourable ratio has been brought up to 1 to 6·7 for the past twelve months, although it was only during the latter half of this period that a definite effort to improve the female attendances was made. However, the lesson is that there is still much untreated venereal disease more especially among women; that by more

active measures they can be brought to treatment centres; and that this treatment of the sources of infection offers the best means of curtailing the spread of venereal disease.

During the six months—January-June, 1932—there were 32 women brought up for examination as the result of information gained at the male clinic. Of these, 24 were found to have evidence of disease, and the remainder, though apparently not infected at the time of examination, did not deny promiscuity and the risk of infection.

Not quite so many prostitutes were examined this year and somewhat fewer were detained, but as pointed out elsewhere, since the depression the street walker and the clandestine are more in evidence and are escaping regular examination in spite of the Vagrancy Acts.

General Remarks and Suggested Future Activities.

Venereal diseases are as great a scourge in Australia as elsewhere, and it is doubtful whether the percentage of the population suffering from it has not increased. Though a preventable disease, it is authoritatively stated to cause more economic loss than the combined efforts of cancer and consumption, so the need for further action is obvious. The problem ahead is a dual one—prevention as well as cure. It is hoped, and an endeavour is being made, that the clinic will be not merely a *locus curandi* but also a centre for the collection of information and knowledge in the light of which a campaign of activities may be commenced which will eventually succeed in materially reducing the incidence of venereal disease. In short, treat the problem as one of preventive medicine which is the proper public health outlook. Unfortunately, times of depression are times of financial stringency, but they are also times when the grim spectre of venereal disease rears its ugly head. Idleness is the mother of lechery, and women forced by economic pressure on to the streets, young men idle and unemployed, and the economic impossibility of earlier marriage, all these will combine to produce scars on our civilisation which will remain long after the temporary depression has passed. Though depressed economic conditions as a cause of promiscuity and fornication may not be capable of immediate solution, much can be done now towards mitigating the resultant disease, and this without undue financial strain.

(1) Publicity Propaganda.—(*a*) Pamphlets explaining venereal disease. (*b*) Notices in public lavatories stating briefly—What venereal disease is; what to avoid; and where to go for treatment. (*c*) Suitable lectures especially to young men.

(2) Co-operation and Co-ordination in treatment especially of syphilis. The absence of a (so far as practicable) uniform scheme of treatment by different centres is not in the best interests of the patients. More or less uniformity is quite possible and is desirable and could be brought about by a central authority co-ordinating and co-operating the work, and collecting and disseminating the latest information relating to the work.

The two clinics, both Male and Female, are doing excellent and very important work, the unpleasant aspects of which have been considerably lessened by more cleanly and hygienic surroundings and the co-operation and harmony of the staff.

STATISTICS.

The term "Venereal Disease" under section 2 (*d*) *of "The Health Acts Amendment Act of 1931"* was amended and now covers gonorrhœa, ophthalmia neonatorum (gonorrhoeal), syphilis (all stages), soft chancre, ulcerative granuloma, and venereal warts. The following tables show the incidence of the disease for the twelve months ended 30th June, 1932.

Nature of Disease.	New Cases.		Duplicate Cases.		Total Patients Notified.	
Gonorrhœa—						
(*a*) Metropolitan area	728	1,200	105	220	833	420
(*b*) Outside areas	472		115		587	
Ophthalmic Neonatorum—						
(*a*) Metropolitan area	3	3	..	Nil	3	3
(*b*) Outside areas	..		..		..	
Syphilis—						
(*a*) Metropolitan area	94	144	7	23	101	167
(*b*) Outside areas	50		16		66	
Syphilis Secondary—						
(*a*) Metropolitan area	18	22	2	2	20	24
(*b*) Outside areas	4		..		4	
Syphilis Tertiary—						
(*a*) Metropolitan area	111	131	2	4	113	135
(*b*) Outside areas	20		2		22	
Syphilis Congenital—						
(*a*) Metropolitan area	315	317	..	Nil	315	317
(*b*) Outside areas	2		..		2	
Gonorrhœa and Syphilis—						
(*a*) Metropolitan area	11	14	3	6	14	20
(*b*) Outside areas	3		3		6	
Soft Chancre—						
(*a*) Metropolitan area	1	2	..	Nil	1	2
(*b*) Outside areas	1		..		1	
Venereal Warts—						
(*a*) Metropolitan area	3	4	..	Nil	3	4
(*b*) Outside areas	1		..		1	
Ulcerative Granuloma—						
(*a*) Metropolitan area	..	4	..	Nil	..	4
(*b*) Outside areas	4		..		4	
Totals—						
(*a*) Metropolitan area	1,284	1,841	119	255	1,403	2,096
(*b*) Outside areas	557		136		693	

During 1930-31, 1,767 notifications were received, of which number 215 were duplicated, leaving a total of 1,552 new cases.

SOURCES OF NOTIFICATION.

——	Metropolis.	Outside Metropolis.	Totals.
Clinics	455	176	631
Private doctors	246	262	508
Hospitals (other than Clinics)	583	119	702

STATED SOURCES OF INFECTION.

Sources ascribed to—	Area.		Totals.
	Metropolitan.	Outside Metropolis.	
Prostitutes from houses	36	55	91
Prostitutes unknown	102	65	167
Non-professionals	334	129	463
Husbands	16	10	26
Wives	22	6	28
Occupational	71	22	93
Black gins	..	18	18
Female relative	..	1	1
Parents	316	2	318
*Extra genital	*3	*2	5
Unknown or unstated	384	247	631
	1,284	557	1,841
Infections ascribed to sources outside Queensland	23	13	36

* 2 chancres on lips ascribed to "kissing" ; 1 infection ascribed to hired bathing suit ; 1 infection ascribed to towel, and 1 to an E.C. seat.

At the end of the fiscal year under review there were 429 patients attending the clinic as against 40 at the 30th June, 1931, and for purposes of comparison a statement covering five-yearly periods is appended.

Nature of Disease.	1931-32.	1930-31.	1929-30.	1928-29.	1927-28.
Gonorrhœa	188	188	214	167	148
Syphilis	90	98	114	88	74
Syphilis Secondary	21	23	26	33	38
Syphilis Tertiary	14	12	13	6	..
Syphilis and Granuloma	25	27	17	9	5
Syphilis Secondary and Granuloma	1	1	3	4	4
Venereal Warts	2	..	1	..	..
Undiagnosed	88	61	45	37	40
Totals	429	410	433	344	309
Actual Venereal Cases	341	349	388	307	269

An abbreviated summary of clinic operations with corresponding figures for 1930-31, 1929-30, 1928-29, and 1927-28 is given hereunder.

MALE CLINIC.

——	1931-32.	1930-31.	1929-30.	1928-29.	1927-28.
Consultations (Medical Officer) a.m.	4,936	4,058	3,111	3,238	2,912
p.m.	5,452	5,703	6,013	6,232	5,234
Totals	10,388	9,761	9,124	9,470	8,146
New cases	756	771	727	648	629
Patients notified	434	445	437	373	356
Blood specimens for W.R.	731	953	667	693	525
Smears for Gonococci	2,423	2,488	2,070	2,166	1,921
Neosalvarsan administered	912	1,306	1,455	1,206	1,230
Bismuth administered	1,464	1,582	1,427	1,453	106
Prostatic massages administered	6,942	7,605	7,271	6,775	5,584
Irrigations administered	45,660	45,707	41,800	40,653	39,636
Prescriptions dispensed by part-time chemist	2,475	3,110	2,455	2,921	3,196
Seamen's cards issued (Quarantine Regulations)	8	17	13	17	13
Certificate of cure or apparent freedom from disease issued	213	221	200	219	189
Certificate of cure or apparent freedom from disease received from other doctors	..	15	5	8	1

Female Clinic (for 8 months, November-June)—

Consultations 1,472, new cases 83, new patients notified 65, 914 administered 137, bismuth administered 148, local treatment 854; records prior to 1st November, 1931, inconclusive.

Breaches of section 162 (3) *of "The Health Acts, 1900 to 1931" (Failure to continue medical treatment for venereal disease within prescribed periods).*

Defaulters notified (males 291, females 39)		330
Defaulters who resumed treatment (males 169, females 38)	207	
Defaulters not located (males 69, females 5)	74	
Defaulters ascertained to have left Queensland (males 10, females 2)	12	
Defaulters ascertained to have died (males 2, females —)	2	
Defaulters regarding whom action not finalised at 30th June, 1932 (males 34, females 1)	35	
	—	330

Prosecutions for breaches of Venereal Diseases Regulations and sections of the Health Acts relating to Venereal Diseases.

Abbreviated summary of action taken.

(*a*) Failure to comply with official notice G (V.D. reg. 9)—Males 8, females 3 ..	11
(*b*) Failure to comply with official notice H (V.D. reg. 10)—Females (only) 19 ..	19
(*c*) Unlawfully treating venereal disease (section 162 (1) of the Health Acts)—male (herbalist) 1	1
(*d*) Occupying or residing in a house frequented by prostitutes (section 168 (1) (iv.) of the Health Acts)—males 1	1
(*e*) Failure to continue medical treatment for venereal disease (section 162 (3) of Health Acts)—males 8	8

Total prosecutions—Males 18; females 22.

Total fines imposed—£88 16s. 6d.

Total costs imposed—£6 9s. 6d.

Examination and Treatment of Prostitutes.

(Regulation 10 of the Venereal Diseases Regulations, 1928, and section 164 (2) of *"The Health Acts,* 1900 *to* 1922.")

Examinations at William Street rooms, Brisbane	845	
Examinations at sixteen centres outside the metropolitan area ..	956	
	—	1,801
Treated at Venereal Isolation Hospital, Brisbane	74	
Treated at centres outside the metropolis	28	
	—	102

Four prostitutes from Rockhampton and 2 from Toowoomba were transferred to Brisbane for treatment, and are included in the Venereal Isolation Hospital figures accordingly.

Prisoners detained under section 164 (2) (*c*) *of "The Health Acts,* 1900 *to* 1931."

Seven male prisoners and 1 female prisoner were detained whilst suffering from venereal disease; the males were in the Brisbane Gaol, and the female at Stewart's Creek, North Queensland.

Food Handlers.

Five men and one woman were interviewed in this regard during the financial year in the metropolitan area.

Sanitation.

The following are the particulars of the work accomplished by the staff in respect to matters relating to general sanitation for the year ending 30th June, 1932.

The various duties which have from time to time come under the purview of the sanitary branch of the Department have kept the depleted staff of this section constantly employed during the period under review.

Inspections, as follows, have been carried out:—

General inspections	1,111
Nuisances	163
Sanitary depots	41
Rubbish tips	41
Official calls	510
Ratproofing	53

The decrease in the vote allocated to the Department, owing to the presence of financial depression, has precluded officers from carrying out the usual extensive tours. Nevertheless good work has been performed, and the towns visited show steady sanitary progress.

Surveys were carried out at Gympie, Maryborough, and Bundaberg, and the reports submitted reveal a very favourable condition of affairs.

Other towns visited during the current year were Southport, Caboolture, Redcliffe, Woodford, Coolangatta, Grandchester, Plainlands, Laidley, Forest Hill, Gatton, Goodna, Redbank, Ipswich, Toowoomba, Nambour, Rosewood.

Calvert was visited for the purpose of selecting a site for a nightsoil disposal depôt for the townships of Calvert and Grandchester. A site was chosen and the necessary service has since been inaugurated.

Owing to repeated complaints re the disposal of the hospital drainage at Esk, a visit was paid to that town, when a report with suggested scheme for the disposal of the wastes was submitted.

At the request of the Chairman of the Maroochy Shire Council, the town of Nambour was visited to advise in regard to the further use of the present disposal ground, when the matter was satisfactorily adjusted.

Southport.—A visit was paid to the Shire of Nerang to investigate the drainage at the Surfers' Paradise Hotel. Various schemes had been tried which proved unsatisfactory. Finality was reached by treating the effluent by filtration and discharging the filtrate by draining into Nerang River.

Owing to complaints received re the gross pollution of Gowrie Creek, a visit was paid to Toowoomba, when an inspection of the probable sources of pollution along the creek, including the sewage disposal works for Toowoomba, was carried out. A full report and recommendations was furnished which, if carried out, should minimise if not abate the trouble.

The question of the pollution of rivers and streams by the discharge of untreated offensive drainage into their waters is a matter which will require to be considered in the near future, as in many instances the streams so polluted form a potential water supply to the many settlers along these watercourses beyond the point of pollution. This is especially the case when drought conditions prevail.

During the year seaside resorts as far north as Tewantin, and south as far as Coolangatta, have been visited for the purpose of inquiring into the sanitary accommodation provided for visiting campers during the summer holidays, especially in respect to Christmas and Easter, when the influx of visitors is great. Improvements were noted at these places, especially on the South Coast, where a good type of brick conveniences has been erected. The provisions of the Camp Regulations empower Local Authorities to exercise complete control over camps. The campers are allotted regulated spaces, and proper sanitary provision is made available, as well as supplies of potable water. By this means the usual insanitary conditions so commonly met with at seaside resorts need no longer prevail.

A great improvement in the sanitation of the town of Innisfail is now being carried out by the construction of a deep drainage scheme, which, when completed, will certainly add to the health and cleanliness of the town. Plans for the work were submitted to this Department and after careful perusal were, with certain suggested amendments, returned to the Shire Council, who embodied the suggested alterations in the scheme.

During the year improvements in connection with sanitation matters at certain metropolitan schools were recommended. Plans have been prepared for the installation of septic tanks at seven of the largest schools. The lay-out and the plans have been carefully inspected, and it is pleasing to state that such action will prove a vast improvement, and these schools are fortunate in having been selected as among the first to receive this advance in sanitation.

Hotel Sanitation.—Matters in respect to sanitation at licensed victuallers' premises are steadily improving, and now where new buildings are being erected the owners or their architects submit their plans with a view to any alterations which may be required. This certainly shows a general desire on the part of the hotelkeepers to improve the sanitary conditions of the premises, and to bring them into conformity with the Act and Regulations.

Particulars of Inspections.

Number of hotels inspected	303
Number of objections	45
Number of reinspections	38

Only the most essential repairs or improvements were asked for owing to the present financial depression. Nevertheless, the cleanliness of the buildings and the comfort of patrons have not been lost sight of.

Rat Destruction.—Regular organised destruction of rodents is still the policy of the Department, whose main object is to prevent another devastating outbreak of plague.

The following operations have been carried out:—

Number of Rodents Examined at Laboratory.

	Rats.	Mice.
Submitted by Department's gang ..	789 ..	16
Submitted by Council's gang ..	16,771 ..	689
	18,265	

Number of Rodents Caught but not Examined.

	Rats.	Mice.
By Department's gang	2,466 ..	33
By Council's gang	954 ..	—
	3,453	

Amount of poison manufactured	1,922 lb.
Sold to Local Authorities and others	1,097 lb.
Baits laid by Department's gangs	587,500

During the year experiments have been made with a new gas gun for the destruction of rats in inaccessible places, such as concrete floors or asphalt pathways, &c. Experiments were carried out on a concrete floor about 18 ft. square. All holes, with the exception of one, were closed and the gun charged and placed in the hole. After gassing, the floor was taken up and 45 dead rats taken out, death being due to the effects of the gas.

Water Sampling.—During the year the method of water sampling and packing was reorganised with a view to procuring more correct samples. By this means it is possible to give a more accurate opinion. Samples have been received from as far north as Mount Isa and many other centres for bacterial and chemical analysis.

Number received for potability ..	105
Number received for typhoid ..	3

Toowoomba and District.

The district inspector furnishes the following information.

Inspections.

Number of inspections	1,761
Number of official calls	195
Number of nuisances inspected ..	75
Number of sanitary depots inspected	21
Number of sanitary tips inspected	33
Number of towns visited	28
Number of miles travelled by car ..	257
Number of miles travelled by rail ..	1,208

All country places inspected appeared to be maintaining the standard secured by our efforts in former years. The outstanding feature of reform is the almost universal adoption of diphtheria immunization, which has resulted in the successful treatment of thousands of children without a single instance of contributory illness.

Hotel Sanitation.

Number of hotels inspected	144
Number of objections lodged ..	33
Number of hotels reinspected ..	31

Names of Licensing Districts Visited.—Toowoomba, Helidon, Warwick, Stanthorpe, Dalby, Goondiwindi, Oakey, Inglewood, Texas, Crow's Nest. The inspector's duties in this connection have been confined to requiring a good standard of general cleanliness, and this has been attained by the valuable assistance readily rendered by the different Licensing Inspectors.

Rockhampton and District.

The following is a summary of the work carried out in the above district:—

Number of inspections	682
Number of official calls	93
Number of nuisances attended to	31
Number of sanitary depots inspected	24
Number of rubbish tips inspected	19
Number of miles travelled by rail	2,282
Number of miles travelled by motor	313

The usual attention has been paid to matters of general sanitation within the city and all the country towns visited.

Matters of general sanitation in all towns visited were suitably dealt with, and in most cases satisfactory reports were furnished. The Health Inspectors attached to the various Local Authorities in the Central Division were found to be carrying out their inspection duties satisfactorily and receiving the support of the Councils.

Approval was granted to the Banana Shire Council to establish a sanitary service at Goovigen, while permission was granted to the Fitzroy Shire Council to discontinue the service at Marmor, provided certain instructions issued by the Commissioner were complied with.

The following towns were visited during the year:—Aramac, Alpha, Baralaba, Barcaldine, Biloela, Blackall, Blair Athol, Bouldercombe, Bororen, Calliope, Capella, Clermont, Emerald, Gladstone, Goovigen, Jericho, Longreach, Marmor, Miriam Vale, Mount Morgan, Mount Larcom, Raglan, Springsure, Walmul, Yarwun, Yeppoon.

Hotel Sanitation.

The following is the result of inspections for the renewal of licenses:—

No. of inspections	59
Number of objections raised	14
Number of reinspections	14

The majority of the improvements ordered related to sanitary conveniences and drainage facilities which were quickly rectified.

Mackay and District.

The following is a resume of the work carried out in this district for the year ending 30th June, 1932:—

Sanitation generally.

Number of inspections made	1,586
Number of official calls	73
Number of nuisances inspected	214
Number of sanitary depots inspected	16
Number of rubbish tips inspected	33
Towns visited	39
Miles travelled by train	772
Miles travelled by car	811

The whole of the area visited was in a fair state and did not call for any drastic action with the exception of Carmilla, where a sanitary service was inaugurated.

Hotel Sanitation.

Number of hotels inspected	75

No improvements were ordered owing to the depressed state of the trade. A number of repairs were ordered and these have all been carried out and the hotels are in fair order.

Townsville and District.

The inspector reports that during the year the following places were visited:—Mount Isa, Cloncurry, Julia Creek, Richmond, Hughenden, Prairie, Charters Towers, Rollingstone, Ingham, Halifax, Macnade, Bermerside, Cardwell, and Cairns.

Sanitary matters in the district continue to receive close attention from the local inspector, and the district is in a fairly satisfactory condition.

In places where circumstances permit, garbage is being used to fill in low-lying land instead of dumping it in unsightly heaps as formerly.

No serious outbreaks of sickness occurred in the district during the year.

Number of inspections made	1,296
Number of official calls	81
Number of nuisances inspected	11
Number of sanitary depôts inspected	5
Number of rubbish tips	7
Miles travelled by train	3,492

Hotel Sanitation.

Hotels throughout the district are clean and for the most part in good order.

Number of hotels inspected	133
Number of improvements ordered	6
Number of water-closets ordered	1
Number of urinals ordered	4
Number of septic tanks ordered	1

Cairns and District.

The district inspector submits the following report of operations in his district for the year:—

Number of inspections	1,931
Number of official calls	57
Number of nuisances inspected	18
Number of sanitary depôts inspected	21
Number of rubbish tips inspected	14
Towns visited	31
Miles travelled by rail	2,273
Miles travelled by boat	240
Miles travelled by car	101

Inspections of the thirty-one towns visited shows a general improvement in sanitation in most of them. As a result of the activities in hookworm control much good work has been accomplished in having sanitary conveniences brought into conformity with the standard requirements of the Regulations.

A new sanitary depot has been put into use at Gordonvale.

The following towns have been visited and reports submitted:—Innisfail, Silkwood, Tully, El Arish, Feluga, Cowley, Garradunga, Mourilyan, South Johnstone, Babinda, Chillagoe, Dimbulah, Mount Mulligan, Mareeba, Mount Molloy, Ravenshoe, Herberton, Atherton, Millaa Millaa, Kairi, Peeramon, Yungaburra, Malanda, Tolga, Kuranda, Cooktown, Mossman, Mungana, Mount Wandoo, Rafa, and Cardwell.

Hotel Sanitation.

The following particulars are submitted in regard to licensing inspections:—

Number of hotels inspected	63
Number of objections lodged ..	12

The following Licensing Districts were visited:—Cairns, Atherton, Herberton, Innisfail, Cooktown, Port Douglas, and Chillagoe.

The licensed victuallers seem to be endeavouring to keep their premises clean and up to the standard required of them.

Food and Drugs.

Operations under the Pure Food and Drugs sections of the Health Acts, the Food and Drug Regulations, Milksellers Regulations, Fish Supply Regulations, Poisons Regulations, and Footwear Regulations have been systematically conducted by the Department's officers throughout the entire year.

Fish Supply.—Early morning and other sales at the State Fish Market have been regularly supervised, goods in cold storage chambers inspected, fish shops visited, and overseas consignments of cured fish examined on arrival by the two officers detailed for such duties.

During the fiscal year 69 tons 3 cwt. 3 qr. 14 lb. of assorted fish was condemned and destroyed as unfit for human consumption.

Apart from this quantity 1,107 sand crabs, a number of mud crabs, lobsters, and crawfish, 5 turtles, and 1 case of rabbits were rejected as unfit.

Milk Supply.—In the Brisbane (Metropolitan) Area the most gratifying feature of the Department's milk campaign was the continued improvement in the quality of the milk from the bacteriological point of view.

Less than ten years ago the Department inaugurated the work of bacteriological milk sampling, when a provisional standard of 1,000,000 micro-organisms per cubic centimetre in summer and 500,000 micro-organisms per cubic centimetre in winter was established.

The first results were somewhat disconcerting, as in all but a few instances the counts obtained ran into millions, evidencing the fact that the production of milk in the metropolitan and nearer rural areas was being conducted in a very careless and slipshod fashion.

Continued sampling and helpful advice by the departmental officers gradually instilled into the minds of milk producers a sense of cleanliness and care in the production of milk. This was reflected by so great an improvement in the bacterial quality of the milk that now it is the exception rather than the rule for milk to contain more than 1,000,000 organisms per cubic centimetre.

The presence of bacteria in milk usually indicates pollution through carelessness either in the production or handling of milk. This point has invariably been stressed by the Department's officer when discussing the question with persons concerned, and in every instance cleaner and more careful production of milk has been coincident with a smaller bacterial count.

That co-operation by producers and handlers of milk has had the desired result is evident from the following tables of milk samples obtained during the last three years:—

Range of Samples.	1929-30.	1930-31.	1931-32.
	Per cent.	Per cent.	Per cent.
Under 10,000 per c.c. ..	2·73	14·49	27·46
Under 50,000 ,, ..	15·03	42·62	56·36
Under 100,000 ,, ..	28·47	54·49	66·18
Under 500,000 ,, ..	63·10	77·68	83·46
Under 1,000,000 ,, ..	76·77	84·35	90·18

These figures show such a sharply defined and consistent improvement in the bacterial quality of milk that the time now seems ripe for raising the bacteriological standard of same by making the summer maximum 500,000 organisms per c.c. and the winter limit 250,000 per c.c.

That these figures are easy of attainment by the majority of dairymen can be appreciated when we particularise further the results of samples obtained during the past year, viz.:—

Range of Samples.	Summer.	Winter.
	Per cent.	Per cent.
Under 10,000 per c.c.	9·30	35·71
Under 50,000 ,, ...	30·23	70·90
Under 100,000 ,, ...	37·79	79·10
Under 250,000 ,, ...	51·74	85·45
Under 500,000 ,, ...	67·44	90·74
Under 1,000,000 ,, ...	81·46	94·18

It will be observed from these tables that during the summer months 67·44 per cent. of the samples examined conformed to the suggested standard of 500,000 micro-organisms per c.c., and that in the winter period 85·4 per cent. conformed to the suggested standard of 250,000 per c.c. These figures indicate that a larger proportion of the samples examined during the past year conformed to the proposed standards than in previous years fell within the ranges of the lower standards.

There is, however, still room for improvement by producers of milk in the metropolitan area, and if this improvement be effected the proposed new standards are capable of attainment by all.

During the year nearly 50 per cent. of the milk samples obtained by the Department's inspectors were examined both microscopically and by animal inoculation for T.B. and other organisms and, except for one or two isolated cases of mammitis, and presence of B. Coli due to fæcal contamination, the samples have proved singularly free from pathogenic organisms.

These samples were obtained from the following sources:—Dairies—at the source of production; Trucks and Railway Stations—at the point of delivery; Retail Vehicles—at the point of delivery. In many instances the milk has been twenty-four hours old at the time of sampling, so that the results are pleasingly surprising.

Considering the wide range from which the samples were taken and the diversity of conditions under which they were obtained it can safely be declared that the milk supply of Brisbane is much cleaner and purer than public

rumour would have us believe, and promises to prove cleaner still if the same co-operation between the producers and handlers of milk and the Department be maintained.

Milk Supply (Chemical).—The year under review has been a very busy one in connection with the control of the milk supply of the metropolitan area—including the coastal townships of Wynnum, Manly, Sandgate, the Town of Redcliffe and also the City of Ipswich.

During the year there has been a proportionately large increase in the number of licenses issued to milk vendors, due principally to persons out of employment embarking in the business in the hope of making a living.

This has necessitated renewed vigilance in the supervision of the distribution of milk by retail vendors, the inspection of premises, vehicles, cans and utensils, and the obtaining of samples for chemical analysis.

In the twelve months ended 30th June, 1,372 samples of milk were obtained in the above area, as against 1,203 samples in the previous year—showing an increase of 14 per cent.

These samples were procured by our Officers at all hours of the day and night from wholesale milksellers, retail vendors, cafes, and of milk in transit by train and motor truck.

Samples of milk were also obtained by officers of Headquarters Staff at Gympie, Bundaberg, Maryborough, Pialba, Coolangatta, Burleigh Heads, and Kilcoy, bringing the total number of samples up to 1,422, as against 1,273 for the corresponding period of the previous year—being an increase of approximately 11 per cent.

The general practice has been for one inspector to attend to sampling for the cleanliness of milk, which samples are examined bacteriologically in the Department's own laboratory, and for another inspector to attend solely to sampling for chemical analysis, these samples being analysed in the Government chemical laboratory for the quality of the milk in milk fat content, &c., and also to detect adulteration by the addition of water or preservatives. The Government Analyst's report discloses the extent of adulteration ascertained.

A number of samples obtained were found to be deficient in the required milk-fat content. The chief causes were found to be, (1) dairy herds containing several cows yielding milk very low in fat, (2) improper or insufficient feeding of the herd, and (3) failure by wholesale milk distributors to properly agitate milk previous to delivering supplies to retail vendors.

In such instances helpful advice has been given by our inspector to the persons concerned, or suppliers instructed to consult the Dairies Branch of the Department of Agriculture and stock as the case has required, and such action has invariably resulted in milk-fat deficiences being corrected.

A phase of the milk control question which has received the especial attention of the Department's inspectors—so far as time and opportunity has permitted—is the proper cleansing and storage of cans and utensils by retail milk vendors. Before a license to sell milk is issued, the applicant is required to satisfy an inspector that he has provided suitable arrangements for storage and cleansing of his cans and utensils on registered premises where proper facilities and accommodation are available.

In several instances it has been found necessary to prosecute vendors who have failed to observe the conditions of their licenses in this respect—mainly for storing milkcans under their houses or in their yards. Many vendors have this year constructed proper rooms on their own premises to specifications supplied by the Department.

During the fiscal year two wholesale milk vendors provided new storage accommodation for cans under the supervision of the inspectors.

One new wholesale milk depot has been established in a brick building, and modern machinery installed for chilling the milk which is obtained direct by motor truck from the dairy farmers.

One dairyman in the metropolitan area is at present installing a machine filler and capper for the purpose of supplying warm milk in sealed bottles to his customers.

Milk Prosecutions (Headquarters Staff).—During the period under consideration, nineteen milksellers were prosecuted by members of Headquarters Staff for the offence of selling milk adulterated with added water, and a conviction obtained in each instance.

The penalties imposed by the police magistrate total: fines £201 8s. and costs £25 7s. 6d.—being an average fine of £10 12s. and average costs of £1 6s. 8d. per case.

For various breaches of the Milksellers' Regulations fifteen milksellers were prosecuted by Headquarters inspectors and a conviction obtained in each instance. Penalties imposed total, fines £36 and costs £3 13s. 6d.—being an average fine of £2 8s. and average costs 4s. 11d.

The principal offences included under this heading consist of the use of dirty and improper vehicles for the carriage of milk, failing to place vendor's name and address on vehicles, and the storeage and washing of milkcans on unlicensed premises.

For the offence of selling milk which upon bacteriological examination was found to furnish bacterial counts in excess of the prescribed maximum limit, two milksellers were prosecuted, and a conviction obtained in each case. Each of these two milksellers was fined £3 with £2 5s. 6d. costs of court.

Fruit and Vegetables.—An officer of Headquarters Staff has, during the entire year, been detailed for duty at the Municipal and Turbot Street Markets for the purpose of inspecting stocks of fruit and vegetables previous to same being offered at the morning sales.

Special attention has been paid to the condition of such goods in so far as their contamination with lead arsenate and other poisonous insecticides is concerned.

During the period under review some 411½ dozen cabbages and cauliflowers, which were found upon analysis to be heavily contaminated with lead arsenate, were seized by our inspector and destroyed. With the exception of 7 dozen from a local grower and a small consignment from Sydney, the whole of the cabbages and cauliflowers destroyed were last season's crop.

The present cabbage season has been a very successful one for the local grower owing to the fact that he has not attempted to grow the vegetable out of season and the insect and grub pests have not been so troublesome. Additionally the assistance rendered by the Local Authority inspector at Cleveland in the direction of visiting farms and tendering advice to growers has assisted materially in maintaining a cleaner supply of vegetables.

In their endeavour to protect growing vegetables from the ravages of insects many farmers place reliance upon lead arsenate, whilst others are successful in marketing a good clean cabbage without the aid of a poisonous spray.

Towards the latter end of the period under review, large consignments of celery were received in Brisbane from South Australia. Samples submitted to the Government Analyst were found to be contaminated with a copper compound, and as it was considered dangerous to allow the celery to be sold for human consumption, 273 cases were seized and finally destroyed.

Fruit Shops and Fruit Barrows have received the inspectors' attention, and on the whole the goods offered for sale found sound and of marketable quality. In such connection very little difficulty was experienced by our officer in convincing fruit shopkeepers and others of the necessity for raising goods exposed outside their premises up from the ground in order to protect same from contamination by dogs. A few shop and stall proprietors, however, still continue to ignore official warnings, and these persons are likely to find themselves facing a police magistrate at no distant date.

Food and Drugs Sampling (Chemical).—During the fiscal year a grand total of 3,431 samples of foods and drugs were obtained by the Department's officers and submitted to the Government Chemical Laboratory for analysis. Of this number 2,050 were legal samples purchased or obtained strictly in accordance with the provisions of the Health Acts and 1,381 were informal samples procured by inspectors for investigatory or survey purposes.

As all of these samples will be dealt with in detail by the Government Analyst in his formal report, they need not be discussed further than to remark that miscellaneous samples were forwarded by the Department's officers from all quarters of the State, and that milk samples were submitted to the Chemical Laboratory from Brisbane, Bowen, Bundaberg, Cairns, Coolangatta, Burleigh Heads, Dalby, Gladstone, Gympie, Hughenden, Ipswich, Kilcoy, Mackay, Maryborough, Pialba, Proserpine, Redcliffe, Rockhampton, Sandgate, Stanthorpe, Toowoomba, Townsville, Warwick, Wynnum, and Yeppoon.

Food and Drugs Sampling (Bacteriological).—In addition to the samples handed to the Government Analyst for chemical analysis, a total of 160 samples were submitted to the Department's Bacteriologist for examination and report in connection with various investigations. These specimens include disinfectants, deodorants, fly-sprays, fish, ham, ice-blocks, ice-cream, milk, mud oysters, sheep tongues, washing compound, and water.

Wines and Spirits.—Thorough inspections of wines and spirits sold in hotels, wine shops, clubs, show booths, &c., as well as of stocks in wholesale merchants hands were carried out during the year, and the results were in the main very gratifying, and demonstrated a general desire upon the part of purveyors to trade within the law.

As the result of an agitation by Southern overseas interests the strength of whisky was reduced from 25 deg. under proof to 32 deg. under proof. The results of this in practice cannot be said to be entirely satisfactory, as some whiskies show a decided "cloudiness," and the public does not appear to receive more for less money as was stated would be the case.

No case of deliberate adulteration of wine or of spirits came under the notice of Headquarters inspectors during the fiscal year, and labelling conditions were found well up to requirements.

Bread.—Visits paid by Headquarters inspectors to bakehouses in the metropolitan and certain country areas have resulted in four bakers being prosecuted for selling lightweight bread. A conviction was obtained in each case, and penalties amounting to fines £12 10s. and costs 14s. imposed by the magistrates.

Jams and Conserves.—A very comprehensive survey was made of all jams on the local market. Over 200 samples of jams, comprising every make and every kind or variety of jam were submitted to the Analyst. In nearly every instance the sample was of excellent quality in so far as its fruit and sugar contents were concerned. In a few cases the question of artificial colour arose, but this was promptly rectified.

Headquarters Staff (General Inspections).—During the fiscal year the usual routine inspections have been continued by officers of Head Office. These have included visits to wholesale warehouses, bond and free stores, markets, auction rooms, food factories, canning works, cold stores, aerated water factories, confectionery factories, retail stores, wharves, racecourses, showgrounds, &c., and have entailed the overhaul of stocks, liquor testing, and bread weighing. In addition, salvage stocks damaged by fire and water have also received special attention.

Unsound and Deteriorated Foods and Drugs.—Arising out of the above inspections deteriorated and unsound food material of a total weight of 19 tons 17 cwt. 2 qr. 27 lb. has been withdrawn from sale by Headquarters officers, in addition to which a quantity of patent medicines, cigarettes, &c., of no specified weight and also the following vegetables not included

in above total have been destroyed under their supervision, viz.:—Cabbages, 240 dozen; cauliflowers, 171½ dozen; tomatoes, 18 cases.

Electrical Freezers.

In continuance of its work in connection with the inspection of electrical freezing apparatus used in retail stores for the production of flavoured ice blocks and other frozen dainties popular with children, the Department's officers have followed up the matter of the replacement of tinned-copper trays and moulds with containers of an approved material. Interested manufacturers have co-operated with the Department and have substituted trays and moulds constructed of monel metal, aluminium, and rubber for the material originally employed for such purpose.

During the course of inspections it was observed that in addition to the freezing of drinks some of the shopkeepers were using their machines for freezing such substances as fruit pulp, cocoa, cocoanut, and milk; whilst in one instance the owner was introducing an occasional coin in the frozen substance as an inducement to purchasers.

Exception was taken by our officers to the freezing of milk and to the introduction of coins and other foreign substances into ice-blocks, and shopkeepers advised to discontinue such practices.

Poisons.

During the entire year careful supervision has been maintained over the sale of poisons under "The Poisons Regulations of 1924." Licensed poison dealers, chemists, general storekeepers, and drapers have been visited from time to time, and as a result it has been ascertained that with few exceptions, the provisions of the said Regulations have been reasonably well observed.

A number of persons have been interviewed concerning the quantity of poisons included in Regulation No. 21 (Dangerous Drugs) that had either been purchased for resale or supplied for medicinal purposes, and it is pleasing to record that with but one exception, the disposal or use was satisfactorily explained.

As a result of investigation in this direction the Medical Board instituted legal proceedings against a local medical practitioner.

Complaints were received from graziers relative to the loss of stock from poisoning by cyanide. This caused the Department much concern, and after long and careful investigation a number of prosecutions were successfully launched against offenders, viz.:—Suppliers, agents, and trappers.

Special inquiries were undertaken during the open season for opossums in 1931 in connection with the illegal sale of cyanide of potash, and as a result of the Department's inquiries in Central-Western districts prosecutions were successfully conducted in six instances for breaches of the Poisons Regulations, fines and costs totalling £79 3s. 6d. being recovered. One person found to be illegally trafficking in cyanide was also proceeded against for having packed the poison in a food container (lollie tin), and the police magistrate hearing the case imposed a fine of £10.

Altogether nineteen prosecutions under the Poisons Regulations were conducted during the year of which one (selling poisons without a license) was dismissed, and eighteen successful.

The total penalties imposed by the magistrate amount to fines £180 17s. 6d. and costs £21 15s.—being an average fine of slightly over £10, and average costs £1 4s. 2d. per case.

Cairns.

The officer in charge of the Department's sub-office at Cairns reports that during the year food inspection, liquor testing, bread-weighing, and the inspection of stores, warehouses, &c., has been carried out, and steady improvement observed in most towns included in the area under his control. Several new modernly equipped cafes have been completed. One improvement noticeable in this area where ice-chests are in common use is the increasing popularity of the electric freezing apparatus.

These machines with their dry, enamelled interiors are much more hygienic than the damp old-fashioned ice chests and ice-boxes.

Outside of Cairns itself the following towns have been visited on food inspection duties, viz.:—Innisfail, Silkwood, Tully, El Arish, Feluga, Cowley, Garradunga, Mourilyan, South Johnstone, Babinda, Chillagoe, Dimbulah, Mount Mulligan, Mareeba, Mount Molloy, Ravenshoe, Herberton, Atherton, Millaa Millaa, Kairi, Peeramon, Yungaburra, Malanda, Tolga, Kuranda, Cooktown, Mossman, Mungana, Mount Wandoo, Rafa, Gordonvale.

In the course of his visits to and from these places our officer travelled 2,273 miles by rail, 240 miles by boat, and 101 miles by motor car.

Arising out of inspections unsound and deteriorated food material of a total weight of 13 cwt. 3 qr. 16 lb. was destroyed as unfit for human consumption, and the following samples submitted for analysis:—Brandy 1, ant cure 1, soap 2, dandruff cure 1, milks.

Prosecutions.—One baker from Cowley was fined £4 8s. and 3s. 6d. costs for selling light-weight bread (first offence), and two Tully bakers who recorded their third conviction for the like offence were fined £114 10s. and £28 15s., with 3s. 6d. cost of court respectively—in addition to which 13s. 11d. witnesses' expenses were recovered. One of these two men recorded his fourth conviction during the year when he was fined £30 10s., 3s. 6d. costs, and £1 7s. 10d. witnesses' expenses. In such connection it is of interest to record that upon the occasion of a recent visit to Tully our inspector found that both bakers had ceased business.

One chemist in Cairns failed to observe the Poisons Regulations during the past open season for opossums, with the result that he was convicted and fined £2 and 3s. 6d. costs for selling cyanide of potassium without a police order.

A cafe proprietor at Atherton was prosecuted for keeping milk in an ice-chest with fish. He was convicted and fined £5, with costs 3s. 6d., and professional costs £2 2s.

Townsville.

The officer in charge of Townsville sub-office reports that in addition to his routine duties in and around the City of Townsville he has made inspections under the Food and Drugs and Poisons Regulations at the following places:—Mount Isa, Cloncurry, Julia Creek, Richmond, Hughenden, Prairie, Charters Towers, Rollingstone, Ingham, Halifax, Macknade, Bemerside, Cardwell, and Cairns, travelling 3,492 miles on his journeys.

The various regulations are, he states, being fairly well observed by traders in these areas, but in a few instances attention was drawn to defects which were mostly the result of ignorance of requirements and the matters remedied.

Milk samples totalling 132 in number were submitted to the Analyst, ten of which were certified to contain added water. A few of the samples were deficient in milk-fat, and the vendors advised in the matter, with the result that subsequent samples showed that the required improvement in quality had been effected.

Bread weighing was carried out periodically, and in a few instances lightweight bread detected.

Liquor testing received attention, and it was found that the required standard of strength was being observed.

Unsound and deteriorated food material of a total weight of 4 tons 5 cwt. 1 qr. 14 lb. was removed from sale and destroyed under our officer's supervision.

Of a total of seventeen prosecutions undertaken by the Townsville inspector, eleven were for adulterated milk, four for shortweight bread, one for selling a scheduled poison without a license, and one for selling poison in a food container.

A conviction was obtained in each instance and penalties amounting to fines £138 3s. 6d., analysts' fees £13 13s., and costs £9 15s. imposed by the magistrates.

Mackay.

The officer in charge of Mackay sub-office reports that in the area under his control the year has been a very quiet one owing to bad trade and shortage of money, consequently very few improvements have been carried out and he has been compelled to direct his attention principally to keeping food premises generally in as good order possible without putting the occupiers to undue extra expense.

The regulations relating to cleanliness in such premises have, he states, however, been strictly enforced and shops kept in a good state of repair.

Milk sampling has been carried out at frequent intervals and the milk found generally of good quality.

Two watered milk samples only were obtained, one of which was effected by a boy on a cart for his own profit and without the owner's knowledge, the other at a town in which milk sampling had not previously been carried out.

Foods stocks in traders hands were found clean and in good order generally, and the requirements of the Poisons Regulations were satisfactorily observed.

Two prosecutions (milk) were undertaken and a conviction obtained in each case, penalties amounting to fines £2, and costs 7s. being imposed.

Unsound and deteriorated food material of a total weight of 8 tons 14 cwt. 2 qr. 21 lb. was removed from sale and destroyed as unfit for human consumption.

Samples totalling 98 of milk and three of water were submitted for analysis.

Towns visited include Hill End, Walkerston, Cedars, Miclere, Sarina, Farleigh, Baker's Creek, Dundula, Foanton, Racecourse, Homebush, Koumala, Bloomsbury, Proserpine, Bowen, Collinsville, Merinda, Ozone, Police Camp, Glenella, Wundaru, Leap, Kuttabul, Mount Pelion, Kolijo, Calen, Eimeo, Marian, Mirani, Gargett, Pinnacle, Finch Hatton, Netherdale, Eungella, Eton, Range, Retreat, Nebo, North Eton.

On these tours 772 miles were travelled by train and 811 miles by motor car.

Rockhampton.

The officer in charge of the Department's sub-office at Rockhampton reports that the usual careful attention was during the entire year given to the various food manufacturing and food handling businesses in that city, and at the various country centres in his area which were visited during such period.

Instructions were issued where required, and in instances where major breaches of the various regulations were observed proceedings were instituted against offenders.

Outside of Rockhampton the following towns were visited during the year, viz.:—Aramac, Alpha, Baralaba, Barcaldine, Biloela, Blackall, Blair Athol, Bouldercombe, Bororen, Calliope, Capella, Clermont, Emerald, Gladstone, Goovigan, Jericho, Longreach, Marmor, Miriam Vale, Mount Morgan, Mount Larcom, Raglan, Springsure, Walmul, Yarwun, and Yeppoon.

On these tours our officer travelled 2,282 miles by rail and 213 miles by motor car.

Arising out of inspections of warehouses, stores, &c., unsound and deteriorated food material of a total weight of 4 cwt. 2 qr. 5¾ lb. was removed from sale and destroyed as unfit for human consumption.

Samples submitted to the analyst during the period under review include milk 55, and spirits 8.

Prosecutions.—Five milksellers in Rockhampton were prosecuted for breaches of the Milksellers Regulations and a conviction obtained in each instance. Penalties imposed total: Fines £5, and costs £1 18s. 6d.

Six ice vendors were proceeded against for the offence of delivering ice for sale in the bare hand; and each was convicted and fined 2s. 6d., with 3s. 6d. costs of court, while professional

costs amounting to £2 2s. 6d. against one defendant, and £1 1s. against another, were also allowed; total fines and costs totalling £4 19s.

Bakehouses.—Inspection of bakeries and pastrycooks' premises have been carried out and where defects were observed action was taken to have same rectified. Seven written notices were issued by our officer, giving owners a specified time within which to carry out certain alterations.

Bread weighing has been attended to as opportunity offered, and, although no prosecutions have been taken during the year, five country bakers were found to be selling short-weight bread, and statements recommending legal action forwarded to Headquarters. The hearing of these cases, therefore, has been set down for the ensuing fiscal year.

Poisons.—During the year 51 inspections under the Poisons Regulations have been carried out. During the months of July, August, and September last it was discovered that large quantities of cyanide was being supplied to chemists and others in the Central-West, and upon investigation it was ascertained that in many instances such poison was being retailed contrary to the provisions of the Poisons Regulations. As a result ten prosecutions were instituted against offenders in such area and convictions obtained in each instance. The total amount of fines and costs being £127 6s. 6d.

A case against a country chemist for selling cyanide without the production by the purchaser of the necessary authority signed by a police officer, is still pending.

Toowoomba.

The officer in charge at Toowoomba sub-office reports that during the year the requirements of Part VI. of the Health Acts (Pure Food and Drugs) and the Regulations made thereunder have been reasonably complied with at his head centre and in the south-western country areas of the territory under his control.

Outside of Toowoomba itself visits of inspection have been paid to the following towns, viz.: —Bell, Withcott, Goondiwindi, Yelarbon, Inglewood, Texas, Hendon, Allora, Haden, Goombungee, Crow's Nest, Pechey, Hampton, Cabarlah, Warwick, Stanthorpe, Killarney, Tannymorel, Yangan Goldfield, Milmerran, Pittsworth, Brookstead, Southbrook, Clifton, Dalby, Tara, and Jandowae.

On his visits to these places our officer covered 1,208 miles by train and 257 miles by motor car.

During the entire year a strict supervision has been maintained over the milk supply, and this has involved the procuring of 177 official samples of milk.

Concerning these, the Government Analyst's reports disclose that three samples were adulterated with added water, fifteen samples deficient in milk fat, and three samples deficient in total solids.

In the case of the samples adulterated with added water, legal proceedings are pending in two instances, whilst in that of the third the vendor proved to be the victim of his wholesale supplier's dishonesty.

The suppliers of the remaining seventeen samples of milk which failed to satisfy requirements were duly informed of their position and were advised to take immediate steps to improve the quality of their product.

Such line of action was only fair and reasonable in view of the fact that in each instance lack of sufficient natural herbage was in all probability responsible for the deficiency recorded.

Unsound Foods.—Arising out of inspections unsound and deteriorated food material of a total weight of 1 ton 3 cwt. 19½ lb. was removed from sale and destroyed under the supervision of our officer.

Samples.—A total of 186 samples were submitted from Toowoomba centre during the year. These consisted of fresh milk 177, rum 4, whisky 3, cloudy ammonia 1, poisons 1.

Prosecutions.—A country hotelkeeper was proceeded against for the offence of selling whisky adulterated with excess water. A conviction was obtained, and a penalty amounting to fine £5 and costs £2 9s. was imposed by the magistrate.

Notices Served.—Written notices totalling 157 in number were served by our officer for the correction of defects met with during the course of his inspections.

Paint.

The sections of the recently amended Health Acts dealing with paints, which were gazetted in October last to take effect from the 1st April in the present year, were, upon the representations of overseas and local paint manufacturers, as well as those of the retail trade, postponed until the 1st October next, upon which date they will in the ordinary course be put into operation throughout the entire State.

The principal section of the new law in such connection requires that every package of paint packed or enclosed for sale shall bear a label on which is plainly stated the name or trade name of the article, the net weight, measure or volume of the contents, the name and address of the manufacturer or seller, and a statement of the ingredients in such paint and the percentage proportions in which they are present.

Although not yet in force the work entailed in interpreting sections for the information of inquirers has necessitated a vast amount of correspondence and personal interviews, and has also required the taking of numerous samples of paints and paint materials of various kinds for examination and report by the analyst.

In view of the extra work experienced in the preliminary stages and of the magnitude of the field to be covered in its enforcement, it is difficult to appreciate how the Department's present small staffs will be able to cope with the extra duties imposed upon it by the new paint law when it takes effect, and it is evident that additional inspectorial assistance will be required.

Footwear.

The provisions of the Footwear Regulations have been enforced and stocks of boots and shoes in the hands of wholesale and retail sellers examined by our officers as opportunity has offered.

With the exception of a consignment from a Southern manufacturer which arrived in Brisbane unbranded, all lines upon the market examined by the Department's inspectors conformed with requirements.

The consignment in question, which consisted of some 500 pairs of boots and shoes, was advertised for sale by public auction, but, owing to the goods not being marked as required by the Queensland Health Acts, the sale was held up and samples of the footwear taken for analysis.

These being found free from any adulteration were finally allowed to be sold after each article was impressed with the marking required by the Footwear Regulations.

Lead Tetra Ethyl.

The Department being approached by a firm which proposed establishing in Queensland depots for the preparation and supply of Lead Tetra Ethyl motor spirit, special inquiries were made by it into the question.

After careful consideration of every phase it was recommended that consent be given to the proposal, subject to the following conditions, viz.:—

(1) That the amount of lead tetra ethyl in the petrol shall not exceed one part in 1,300 parts by volume, or about 1 in 650 by weight;

(2) That the petrol shall be coloured with an approved dye as a check against its use otherwise than as motor fuel;

(3) That the regulations recommended by the Committee appointed by the Surgeon-General of the United States of America Public Health Service at the request of a conference held in 1925, reported in January, 1926, in the terms specified in a communication from the Comptroller-General dated Canberra, 28th September, 1931, be strictly observed; and

(4) That the precautions required by the Commonwealth Authorities, as prescribed in the said communication, as well as those laid down by the Ethyl Gasoline Corporation in its handbook of "Rules and Regulations governing the Handling of Ethyl Fluid," shall be scrupulously carried out.

The said conditions were accepted by the firm in question, which up to the present time, however, has not opened up business in Queensland.

LAZARET, PEEL ISLAND.

The following tables show the number of patients admitted, discharged, and deaths, as well as the number of those under treatment at the Lazaret on the 31st December, 1931.

White Inmates.

1930.

Remaining 1st January	33	
Admitted	6	
	—	39
Discharged	4	
Deaths	4	
Disappeared	1	
	—	9
Total number, December, 1930		30

1931.

Remaining 1st January	30	
Admitted	9	
	—	39
Discharged	7	
Deaths	0	
	—	7
Total number, December, 1931		32

Coloured Inmates.

1930.

Remaining 1st January	31	
Admitted	2	
	—	33
Discharged	2	
Deaths	7	
	—	9
Total number, December, 1930		24

1931.

Remaining 1st January	24	
Admitted	6	
	—	30
Discharged	2	
Deaths	4	
	—	6
Total number, December, 1931		24

Grand total remaining at Lazaret, 31st December, 1930, 54.

Grand total remaining at Lazaret, 31st December, 1931, 56.

The medical treatment of the inmates is entrusted to the doctor in charge of the Benevolent Asylum at Dunwich whose services, through his being in close proximity to the Lazaret, are always available, and in addition the services of a resident staff nurse are provided at the Lazaret.

Specimens are regularly furnished to the Commissioner who, when satisfied of continued freedom of the disease, recommends the patient's discharge under surveillance when arrangements are made for obtaining periodical specimens for three consecutive years and during which time free supplies of medicine are provided to discharged patients.

The general conduct of the inmates continues to prove satisfactory, and it is pleasing to record that any thing in the nature of complaints is conspicuously absent, which may be accepted as evidence that the officials, whose work brings them in daily and close contact with the patients, are doing everything in their power to satisfy those entrusted to their care.

As in previous years every facility has been afforded to visitors seeing their relatives. Free railway passes are issued to country visitors twice yearly, and many expressions of appreciation have been received from them for the kind treatment they have invariably met with in respect to their periodical visits to the Lazaret.

The scale of diet and supplies of clothing issued may be regarded as generous, and the preparation of daily meals by competent cooks leaves nothing to be desired.

It is pleasing to note that the whole administration of the Lazaret can be regarded as entirely satisfactory.

LABORATORY OF MICROBIOLOGY.

The following is an outline of the work carried out at the Laboratory for the year ended 30th June, 1932.

The total number of specimens received numbered 49,919, a decrease of 16,334 to that of last year. This decrease was due to a great decline in the number of rodents (for the plague bacilli) received from the Brisbane City Council, a decrease of 10,833, also a very marked decrease (5,957) is noticed in the number of cultures received for the diphtheria bacillus.

The following tabular statement shows the source of the specimens received for examination by the Laboratory:—

Specimens from—	Medical Practitioners.	Hospitals.	Councils and Institutions.
Within the Brisbane area ..	90	4	10
Outside the Brisbane area..	88	41	49

Plague.—The number of rodents destroyed during the year shows a decrease of 11,412 compared with last year, and 22,759 less than the year ending June, 1930.

From a public health point of view this is very disappointing, and might easily become so serious as to be a menace to the health of the community, especially as it is known that the rat population has greatly increased during the last few years.

Of the 18,268 received all were examined, but in none of the specimens was any evidence of plague found.

Rats received were classified as follows:—

Rattus Rattus Norvegicus	9,320
Rattus Rattus Rattus	1,737
Rattus Rattus Alexandrinus ..	3,759
Hydromys Leucogaster	2
Unclassified (very young rats) ..	2,745
Mus Musculus	705

Five rats showed the presence of numerous acid-fast bacilli (rat leprosy).

Smears from rats in northern towns were submitted for examination but none were found to be plague infected.

Diphtheria.—The total number of cultures submitted for examination for the year ended 30th June, 1932, was 11,065; of these 22·7 per cent. contained the Klebs Loeffler's bacillus, whilst for the previous year the number examined was 16,922, of which 12·9 per cent, showed the bacillus.

Venereal Disease.—There was a decrease in the number of specimens submitted for examination. This was due not to a decrease in the number of patients but to the Medical Officers in charge of venereal patients submitting only necessary specimens.

Of the Wassermann Reactions made, 651 were positive. This is 32·8 per cent. as compared with 27·7 last year.

Of the gonorrhœal complement fixation tests made, 148 were positive, or 31·1 per cent.

Nine hundred and fifty-one smears examined for gonococci were positive.

Of the specimens submitted to dark ground examination for spirochæta pallida, 68·2 per cent. were positive.

Typhoid.—The number of blood specimens examined by the agglutination method for evidence of the presence of the typhoid and para typhoid fevers showed a decrease on those examined last year. Of those submitted 8·7 per per cent. were positive.

Tuberculosis.—There were 629 specimens submitted for examination for tubercle bacilli. The percentage showing the bacillus in sputum was 30·3, compared with 24·1 last year.

Leprosy.—The specimens of sera submitted for the bacillus lepræ numbered 830, as against 1,019 last year. The majority of these were from persons suffering from the disease—patients of the Lazaret.

Autogenous Vaccines.—The number of these vaccines prepared during the year was increased over 50 per cent. compared with last year. The amount of antityphoid (T.A.B.) vaccine supplied was 607 c.cs.

Culture Media.—Fourteen thousand five hundred and forty-four swabs and cultures were forwarded to the Commonwealth Health Laboratories at Cairns, Townsville, Rockhampton, and Toowoomba.

Miscellaneous.—The number of miscellaneous specimens, including waters, milks, ice creams, urines, fæces, oysters, eggs, &c., show a marked increase.

Report of Specimens Received in the Laboratory during the Year 1931–32.

Examination.	Health and Hospitals.	Private Practitioners.	Total.
Diphtheria—			
Cultures	8,449	2,616	11,065
Virulence tests	19	7	26
Direct smears	3	6	9
Gonorrhœa—			
Smears	8,513	764	9,277
Bloods	459	16	475
Cultures	3	..	3
Urines	2	1	3
Syphilis—			
Wassermann reaction ..	1,459	528	1,987
Spirochæta pallida ..	40	4	44
Typhoid—			
Widal reaction	30	39	69
Urines	38	12	50
Fæces	54	16	70
Waters	3	..	3
Blood cultures	2	1	3
Tuberculosis—			
Sputa	183	147	330
Milks	294	..	294
Pleural fluid	1	1	2
Urines	3	..	3
Vaccines—			
Cultures	23	31	54
Urines	6	3	9
Sputa	..	4	4
Fæces	2	4	6
Organisms—			
Sputa	3	6	9
Milks	9	..	9
Waters	108	..	108
Cultures	9	4	13
C.S. fluid	12	..	12
Urines	8	11	19
Fæces	..	2	2
Bloods	2	1	3
Smears	4	5	9
Pleural fluid	1	1	2
Fluid	1	..	1
Oysters	61	..	61

Report on Specimens Received in Laboratory during the Year 1931-32—*continued.*

Examination.	Health and Hospitals.	Private Practitioners.	Total.
Examination—			
Milk (count)	621	..	621
Urino deposits	3	1	4
Urine for albumen	3	..	3
Urine for bile	1	..	1
Urine for sugar	..	1	1
Waters (potability)	105	..	105
C.S. fluid	2	2	4
Milk (blood)	2	..	2
Fly sprays	2	..	2
Eggs	48	..	48
Hams	2	..	2
Mud	1	..	1
Oysters	64	..	64
Ice blocks (count)	5	..	5
Ice creams (count)	50	..	50
Frozen sweets	27	..	27
Kooshies	54	..	54
Clothing (seminal stains)	1	..	1
Lavac	1	..	1
Disinfectants—			
Coefficiency	7	..	7
Examination	6	..	6
Fæces—			
Ova	52	19	71
Dysentery	3	2	5
Amœbæ	1	2	3
Tape worms	1	..	1
Parasites	1	..	1
Blood	..	2	2
Filaria—			
Blood	2	2	4
Malaria—			
Blood smears	1	2	3
Blood—			
Differential count	11	..	11
Anæmia	5	..	5
Typhus	..	6	6
Bashophilia	1	2	3
Bacillus abortis	1	..	1
Food poisoning	..	1	1
Sugar estimation	..	1	1
Staphlococcus (blood smear)	1	..	1
Leprosy—			
Human	733	97	830
Rat	5	..	5
Meningitis—			
C.S. fluid	2	..	2
Blood cultures	47	..	47
Urea Concentration—			
Urines	2	..	2
Vincent's Angina—			
Smears	..	2	2
Culture	1	1	2
Medico-Legal—			
Seminal stains	7	..	7
Blood stains	3	..	3
Food Poisoning—			
Sheeps' tongues	2	..	2
Hams	2	..	2
Colloid Benzoin Test—			
C.S. fluid	1	..	1
Animal Inoculation—			
Milk (T.B.)	61	..	61
Totals	21,754	4,374	26,128

Examination of Rats and Mice for Plague.

Rodents received from—	Rats.	Mice.	Total.
Department of Public Health	789	16	805
Brisbane City Council	16,771	689	17,460
Miscellaneous sources	3	..	3

Rodents Destroyed (not Examined).

Rodents destroyed by—	Rats.	Mice.	Total.
Department of Public Health	2,466	33	2,499
Brisbane City Council	954	..	954

Rat Smears Received During the Year.

Bundaberg	1,034
Gympie	574
Ipswich	1,468
Mackay	378
Maryborough	2,069
	5,523

Grand total, 49,919.

Requisitions supplied during the year, 619.

Cultures and swabs supplied to the Commonwealth Laboratories were as follows:—

Cairns	3,456 swabs and cultures
Rockhampton	2,880 swabs and cultures
Toowoomba	5,184 swabs and cultures
Townsville	3,024 swabs and cultures

Culture Media Prepared in the Laboratory during the Year 1931-32.

Medium prepared.	No. of tubes, &c.	
Ordinary Agar—		
Small slopes	347	
Large slopes	38	
Tubes for counts	405	
		1,090
Serum Cultures—		
Oxserum slopes	31,025	
Oxserum plates	110	
Human serum plates	144	
		31,279
Ordinary Broth—		
Small tubes	573	
Tubes (disinfectant)	366	
		939
Sugars—		
Lactose	540	
Glucose	184	
Saccharose	282	
Amygdalin	32	
Salacin	235	
Glycerine	127	
Maltose	221	
Mannite	126	
Sorbite	35	
Dextrin	35	
Adonite	69	
Erythrite	35	
Raffinose	35	
Laevulose	69	
Inosite	36	
Dulcite	104	
Galactose	35	
Inulin	30	
		2,230
Treble Lactose—Tubes		83
Endo's Medium for B. Typhosus and B. Coli—Plates		1,285
Methyl Red Medium—Tubes		144
Brilliant Green Enrichment Medium—Tubes		422
Peptone Water—Tubes		112
2 per cent. Glucose Broth—Tubes		140
Lemco Broth—Litres		17
Gelatin—Tubes		30
Eosin Methylene Blue Medium—Plates		52
Litmus Milk—Tubes		40
Total		37,863

ADMINISTRATION.

It affords me pleasure in reporting that during the year the provisions of the Health Acts have been satisfactorily carried out by the staff under my control.

I desire to thank the Government Analyst whose active co-operation in respect to Foods and Drugs has materially simplified the work of this branch of my Department.

Sanitation has, as in past years, received close attention at the hands of the staff, and it is pleasing to state that Local Authorities generally throughout the entire State have responded cheerfully to the many calls made upon them in effecting sanitary improvements.

The valuable and untiring assistance rendered by the officers of the Crown Law Department as well as officers of the Police Department has proved most helpful, and to them I express my appreciation.

I have also to thank Dr. J. V. Duhig who so ably conducted the preparation of serum during the recent outbreak of Anterior Poliomyelitis, which was of great value when supplies were difficult to obtain from the South. At present a stock of this serum is stored for future requirements in various parts of the State.

The advice and aid of the medical practitioners who formed the Committee of the Anterior Poliomyelitis Campaign proved of great assistance during the recent outbreak.

During the year an Amended Health Act was passed by Parliament and assented to on the 7th October, 1931, the principal amendments being in respect to Dangerous Drugs, Poisons, and Paints, &c.

JOHN COFFEY, F.R.C.S., D.P.H.,

Commissioner of Public Health.

Appendix A.

GOVERNMENT CHEMICAL LABORATORY.

Brisbane, 7th September, 1932.

The Commissioner of Public Health,
Brisbane.

SIR,—I have in accordance with section 31 of "*The Health Acts,* 1900 *to* 1931," to submit the following report of work done in the Government Chemical Laboratory for the Department of Public Health during the year 1931-1932. The number of samples 3,431, examined was for the third successive year a record, the number being 394 greater than for last year.

The following table summarises the work:

TABLE I.

Nature of Sample.	Total Number of Samples.	Passed.	Failed.
Baking chemicals and powders	26	20	6
Beverages and cordials	78	60	18
Cereals and cereal preparations	28	23	5
Confectionery	13	11	2
Fish (tinned)	21	17	4
Fruits (preserved) and fruit juices	20	17	3
Jam and honey	224	220	4
Meat and vegetables	62	9	53
Milk (fresh)	2,067	1,706	361
Soap	16	11	5
Spirituous liquors	60	41	19
	2,615	2,135	480
Colourings and dyes	23		
Disinfectants	36		
Drugs and medicines	84		
Toilet preparations	10		
Water and sewage	54		
Tobacco	171		
Miscellaneous	438		
	3,431		

Of the total number of samples of foods and drugs submitted, 1,921 were legal samples taken by inspectors in accordance with the provisions of the Health Acts. The results are shown in Table II.

TABLE II.

Nature of Sample.	Number of Samples.	Passed.	Failed.
Jam	5	2	3
Milk	1,865	1,500	361 (4 sour)
Soap	5	..	5
Spirituous liquors	23	7	16
Miscellaneous	23	14	9
	1,921	1,523	394

The following table records details in regard to the 1,865 legal samples of milk.

TABLE III.

Place.	Number of Samples.	Passed the Standard.	Genuine but below the Standard.	Deficient in Fat.	Adulterated with Water.	Average Percentage of Added Water.	Sour and unfit for analysis.
Brisbane	1,134	900	120	69	45	11	..
Bowen	23	18	..	5	..	..	..
Bundaberg	10	9	..	..	1	5	..
Cairns	8	7	..	..	..	..	1
Coolangatta and Burleigh Heads	11	10	..	..	1	7	..
Dalby	11	7	..	4	..	..	..
Gladstone	6	1	..	..	5	3	..
Gympie	12	10	..	..	2	5	..
Hughenden	5	2	..	1	2	26	..
Ipswich	83	72	8	1	2	3	..
Kilcoy	2	2	..	..	..	..	..
Mackay	59	46	1	10	2	8	..
Maryborough	9	8	..	..	1	16	..
Pialba	6	5	..	..	1	8	..
Proserpine	17	17	..	..	..	..	..
Redcliffe	28	23	..	5	..	..	..
Rockhampton	41	30	..	10	1	2	..
Sandgate	59	50	3	4	2	11	..
Stanthorpe	5	5	..	..	..	..	..
Toowoomba	147	130	3	12	2	12	..
Townsville	119	87	1	21	8	12	2
Warwick	14	14	..	..	..	..	..
Wynnum and Manly	48	42	3	2	1	2	..
Yeppoon	8	5	1	1	..	..	1
	1,865	1,500	140	145	76	10	4

A summary of these results shows that 4·1 per cent. of the samples were adulterated with water, 7·8 per cent. were deficient in fat, 7·5 per cent. were genuine but below the standard, while 80·4 per cent. passed the standard. 0·2 per cent. were unsuitable for exact analysis.

The following table shows the milk position as compared with the four previous years.

TABLE IV.

Year.	Number of Legal Samples.	Percentage Deficient in Fat.	Percentage Watered.	Average Percentage of Added Water.
1927–28	732	4·9	4·4	7
1928–29	715	8·8	11·9	11
1929–30	1,414	6·4	5·5	9
1930–31	1,638	8·7	2·5	8
1931–32	1,865	7·8	4·1	10

The position with regard to adulteration of milk with water is slightly worse than last year, although better than in any previous year. The removal of some of the fat from the milk is, unfortunately, just as prevalent as ever, and when it is remembered that the valuable vitamins A and D are contained in the fat such removal is very objectionable from the health standpoint. The average proportion of fat in all milk samples taken during the last thirty years has been very close to 4 per cent., varying from 3·9 per cent. to 4·1 per cent. There is, therefore, no excuse for about one sample in every thirteen falling below the legal minimum of 3·3 per cent. of fat.

Thirty-two samples of cabbage and six samples of cauliflower contained lead arsenate. One cauliflower submitted contained thirteen grains of lead arsenate on the leaves and seven-tenths of a grain on the flower. The position with regard to the use of lead arsenate on cabbages and cauliflowers has much improved, but a few growers still persist in this dangerous practice.

Of twenty-one samples of paint scrapings submitted, fourteen contained more than 5 per cent. of soluble lead. Such paints are prohibited for use on any veranda railings, gate, or fence. Nine boxes of crayons were examined in regard to their suitability for use in schools. Lead chromate was present in quantity in the orange, yellow, and green coloured crayons. Lead-containing crayons are not suitable for use by children.

Twenty marking inks used for branding food containers were examined for poisonous substances, and two samples were found to contain lead compounds.

The miscellaneous samples included currants (9), hair (4), nicoquick (7), paint (43), peanuts (16), sugar (11), and urine (193) in connection with suspected cases of lead poisoning.

Yours faithfully,

J. B. HENDERSON,
Government Analyst.

Price 10*d.*]

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